



**Background:** The main aim of the **Systems Research Herd** at UCD Lyons Farm is to evaluate the feasibility (including profitability) of a higher input/output grazing system within a limited land holding scenario. The focus is on maximising milk solids output from the existing land holding which involves high output from individual cows and high stocking rates on the MP. This will occur most efficiently through maximising the use of grazed grass/home grown forage in the system and the strategic use of supplementation thereafter. Such a system might facilitate the successful expansion of the farm business without the need to buy or rent extra land, to buy stock, to acquire extra labour or to provide extra cow facilities. For the study purpose, stocking rate and concentrate inputs are fixed. For more details on the Systems Research Herd visit <http://www.ucd.ie/agfood/welcomemessage/systemsresearchherd/>.

## Lyons Systems Research Herd Notes Week 08-05-17

### Farm Details:

Area available: 17.65 ha  
Current Stocking Rate (MP): 3.4  
Farm Cover: 602 kg /DM/ha (177 kg DM/cow)  
Growth rate: 45kg DM/ha per day  
Demand: 54 kg DM/ha/day  
Supplement: Concentrate 6-8 kg/cow/day  
Average DIM: 77 (range 15-109)



### Grass Supply:

AFC on 8<sup>th</sup> May was 602kg DM/ha (range 200 to 1200kg DM/ha). We are about half way through the third rotation. Growth picked up slightly last week when the temperature rose but remains poor in very dry conditions. We baled 2 paddocks (total 2.58ha) on Wednesday last so all paddocks are now back in the rotation. We are allocating 16kg DM of grass and an average of 6.5kg of conc. per day. We are buffer feeding cows with 2.0 to 2.5 kg of grass silage after the afternoon milking to compensate for low grass growth rate.

### Grazing conditions:

Ground conditions are ideal for grazing this week as the dry weather continues, but we could do with some rain to increase grass growth. Grass that the cows grazed over the weekend was 18-19% DM.

### Supplements:

Cows are being fed on average 6.5 kg (between 6 and 8 kgs) of a high energy, medium protein concentrate mainly comprising of 23% barley, 23% maize grain, 15% maize distillers grain, 12% unmolassed beet pulp, 12% soybean meal, and 12% soya hulls. The feed was formulated to supply 450 mg copper, 3.6 mg selenium and 12 mg iodine per day for an 8 kg feed rate.

### Fertiliser:

118kg/ha (95 units/acre) of Nitrogen has been spread on the MP to date. A second split of compound fertiliser and CAN will be applied this week.

### Milk Production:

Average production is currently 34.3 kg/cow, 4.0% fat, 3.3% protein (2.5 kg MS). SCC is 53,000.

**BCS:** The average BCS on 9<sup>th</sup> May was 2.9 with a range of 2.5 to 3.5. 88% of the herd were in the range 2.75 to 3.25.

### Breeding Season 2017:

Breeding started on April 24<sup>th</sup> and will continue for 12 weeks. Sixty percent of the herd have been bred as of the 8<sup>th</sup> May (14 days of breeding). Breeding is all by A.I. and bulls to be used across the herd this year are as follows: FR2226, FR4020, FR2298, SEW, FR4019, FR4118.

Cows on OAD will stay on OAD until at least six weeks of the breeding season has passed. The average yield of this group before going on OAD was 35.7 kg/d (2.7 kg MS) with a SCC of 38,000. Three weeks after going on OAD yield was 28 kg/d (2.0 kg MS) with a SCC of 36,000. The BCS of this group improved from 2.42 on the 29<sup>th</sup> March to 2.83 on the 9<sup>th</sup> May.

We recently used an intensive foot bathing programme to clear up a high level of digital dermatitis and slurry heel problems following the winter. The cows have responded well with current lameness less than 11%.