



Lyons Systems Research Herd Notes

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 22-05-17

Farm Details:

Area available: 17.65 ha
Current Stocking Rate (MP): 3.4
Farm Cover: 733 kg /DM/Ha (215 kg DM/cow)
Growth rate: 110kg DM/ha per day
Demand: 58 kg DM/ha/day
Supplement: Concentrate 6 kg/cow/day
Average DIM: 90 (range 28-122)



Grass Supply:

AFC on 22nd May was 733kg DM/ha (range 100 to 1400kg DM/ha). We began the 4th round over the weekend and we are allocating 17kg DM of grass and an average of 6kg of concentrates per day. Grass growth has doubled in the last week so surplus paddocks have been taken out for bales and they will be cut Wednesday. We are measuring twice a week to keep track of growth and control quality with another cover planned for Friday. We will also be spraying off 2ha (11%) of the MP this week for reseeding.

Grass grazed over the weekend was 19% DM.

Supplements:

As cows reach 120 DIM, concentrates are being reduced to 3.5 kg per day. Cows are being fed on average 6 kg (between 3.5 and 8 kgs) of a high energy, medium protein concentrate.

A recent trace element screen on pasture (17 paddocks), blood, urine and liver samples for the herd indicates that cows had adequate Iodine status as indicated by urinary Iodine analysis. The amount of Iodine fed at the time was 9 mg per day and herbage samples averaged 0.4 mg /kg DM Iodine (range 0.32 to 0.46). Other results indicate adequate Copper status despite quite high levels of herbage Molybdenum. Overall we are quite happy with this outcome. It appears that we can achieve adequate Iodine status with a low supplementation rate at Lyons.

Fertiliser:

154kg/ha (125 units/acre) of Nitrogen has been spread on the MP to date.

Milk Production:

Average production is currently 34.6 kg/cow, 3.97% fat, 3.42% protein (2.6 kg MS). SCC is 128,000, based on milk recording on the 10th of May. This has more than doubled from the previous recording due to one cow with clinical mastitis recording a SCC of 4.3 million.

BCS: The average BCS on 9th 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 24th and will continue for 12 weeks. By the end of the 3rd week of breeding 92% of the eligible cows (≥ 42 DIM at MSD) had been served. 5 cows have repeated by the end of the 4th week 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, FR2426, FR2032, FR2339, FR2237, FR4021, YKZ and FR2040.