



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 15-05-17

Farm Details:

Area available: 17.65 ha
Current Stocking Rate (MP): 3.4
Farm Cover: 686 kg /DM/Ha (201 kg DM/cow)
Growth rate: 52 kg DM/ha per day
Demand: 54 kg DM/ha/day
Supplement: Concentrate 6-8 kg/cow/day
Average DIM: 82 (range 21-115)



Image © Zoe McKay

Grass Supply:

AFC on 15th May was 686kg DM/ha (range 250 to 1400kg DM/ha). We are about to begin the 4th rotation with a pre-grazing cover target of 1200–1300 kg DM/ha. We are allocating 16kg DM of grass and an average of 6.2kg of concentrate per day with a view to increasing grass allocation in the coming weeks as concentrate levels in the diet begin to drop for cows at 120 DIM. 2 kg of silage DM was buffer fed to cows after evening milking on 3 days last week. This was done to maximise the number of grazings we could get in paddocks when growth was slow. This step also allowed us to ensure continued high DM intake at this critical point in the breeding season.

Grass Growth

Growth rate increased last week to leave it almost on par with demand. We expect growth to surpass demand in the coming weeks due to 12mm of welcome rainfall over the weekend.

Silage

First cut silage was harvested on Thursday last week (May 11th). 7ha from a separate block to the MP were cut on Wednesday 10th and put into the pit on Thursday. This silage consisted mostly of a PRG/Red clover sward which was 21-22% DM on the day it was cut.

Supplements:

Cows are being fed on average 6.2 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:

154kg/ha (125 units/acre) of Nitrogen has been spread on the MP to date. A second split of CAN and 20-2-12 went out on Wednesday last, the 11th May.

Milk Production:

Average production is currently 34.29 kg/cow, 4.0% fat, 3.3% protein (2.5 kg MS). SCC is 53,000 (Fat, protein and SCC based on milk recording results 25/4/17).

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) have been served. Breeding is all by A.I. and bulls being used are as follows: FR2226, FR4020, FR2298, SEW, FR4019, FR4118FR2426, FR2032, FR2339, FR2237, FR4021, YKZ and FR2040.