



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 24-04-17

Farm Details:

Area available: 17.65 ha (3.48 ha closed for 1st cut silage)
Current Stocking Rate (MP): 4.02
Farm Cover: 861kg DM/Ha (214 kg DM/cow)
Growth rate: 54kg DM/ha per day
Demand: 65kg DM/ha/day
Supplement: Concentrate 6-8 kg/cow/day
Average DIM: 60 (range 18-94)



Grass Supply:

AFC on 24th April was 861kg DM/ha (range 300 to over 2000 kg DM/ha). We are 18 days into the second rotation, so we will be starting the third rotation on Thursday or Friday of this week. Growth is up slightly on what it was last week although we are expecting it to drop again due to lower temperatures being forecasted for this week. Slower than expected growth means we will likely need to graze a paddock that had been previously closed off for silage.

We are allocating 16kg DM of grass and 7kg of concentrate per day. We are aiming to graze out paddocks tightly (~4cm) in the second rotation, especially those that were not grazed well in the first.

Grazing conditions:

Grazing conditions remain good with very little rainfall last week. Grass that the cows grazed over the weekend was 18% DM. Cows did not clean out paddocks as well as we would have liked last week. This is due mainly to the fact that some of the paddocks were left quite dirty having been grazed in difficult conditions in the first round.

Supplements:

Cows are being fed on average 7kg (between 6 and 8 kgs) of a high energy (0.94 UFL), medium protein (16%) concentrate. They start at 4 kg/d after calving and are built up to 8 kg over 7 days. Once they reach 60 DIM this is reduced to 6 kg/d.

Fertiliser:

Urea was applied at a rate of 61.75kg/ha (½ bag per acre) on the 19th of January.

Urea was also applied at a rate of 123.5kg/ha (1 bag per acre) on 15th of March.

The farm was blanket spread on 19th April. 20-2-12 was applied at 166kg/ha (1.3 bags per acre) on P index 2 soils and CAN was applied at 123kg/ha (1 bag per acre) on P index 3&4 soils.

Milk Production:

Average production is currently 34 litres per cow, 4.3% fat, 3.4% protein (2.6 kg MS). SCC is 52,000.

Breeding Season 2017:

Breeding started on April 24th and will continue for 12 weeks.

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. These bulls are selected largely for their suitability to maintaining the two distinct groups (Low vs High milk PTA) within the system, along with increasing overall herd EBI.