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 02-05-17

Farm Details:

Area available: 17.65 ha (2.58 ha closed for 1st cut silage)
Current Stocking Rate (MP): 3.72
Farm Cover:780kg/DM/Ha (209 kg DM/cow)
Growth rate: 34kg DM/ha per day
Demand: 59kg DM/ha/day
Supplement: Concentrate 6-8 kg/cow/day
Average DIM: 60 (range 1-101)

Grass Supply:

AFC on 2nd May was 780kg DM/ha (range 270 to 1250kg DM/ha). We began the third grazing rotation on Monday, May 1st. Growth is down on what it was last week due to low temperatures and very little rainfall. This slowing growth rate meant that we had to graze 2 paddocks that had been stopped for first cut silage. We are allocating 16kg DM of grass and 7kg of conc. per day.

Grazing conditions:

Ground conditions are ideal for grazing this week as the dry weather continues. Most recent figures from Met Eireann show that we were amongst the driest areas in the country last week with under 3mm of rainfall. Our own weather data shows that rainfall at Lyons was about half of what it was at the closest Met station.
This is adding to a very dry April which saw under 10mm of rainfall over the whole of last month. If the dry weather continues, slow growth may become a bigger issue than it is currently.
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 (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 and then to 3.5 kg/d at 120 DIM.

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 34.4 L per cow, 4% fat, 3.3% protein (2.5 kg MS). SCC is 53,000.

BCS: The average BCS on 27th April was 2.85 with a range of 2.5 to 3.25.

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.

Other issues:

Thirteen cows went on OAD for about one month in advance of the breeding season which improved BCS in that group. Ten cows had liver samples taken by biopsy and blood samples taken to assess trace element status (awaiting results).