

Project Objectives

- To develop a profitable high-output grass-based spring milk production system
- To incorporate the most recent advances in grassland management for dairy farms into a high- output system
- Use a type of dairy cow that has good genetic indices for both milk production and fertility
- Employ the best practices from nutrition research and dairy cow husbandry
- Incorporate nutritional studies into a high-output system
- To incorporate management technologies and system attributes that enhance the sustainability of dairy production



For more details on the High Output Systems Research Herd visit <https://www.ucd.ie/agfood/about/lyonsresearchfarm/lyonsdairyherd/>

Lyons Systems Research Herd Notes Week 02/12/2024

Farm Details:

Area Available	17.43	Ha
Current SR (MP)	3.27	LU/ha
Farm Cover	772	kg DM/ha
Cover/LU	0	Kg DM/day
Growth Rate	5	kg DM/ha/day
Demand	0	kg DM/ha/day
Average Conc.	4	kg/day
Average DIM	281	days
Grass DM	14	%

Cow Details:

YIELD	9.53	kg/cow/day
Fat	5.51	%
Protein	4.12	%
MS	0.94	kg
SCC	120.8	Cells/ml milk
Cows Dried off	13/44 (4.5)	(30%)

Grazing plan:

The last grass walk of 2024 was conducted on the 3rd of December and an AFC of 772 kg DM/ha was recorded. Growth rates are averaging 5 kg DM/ha/day. This aligns with the cooler conditions, as soil temperatures across the milking platform have dropped to 5.1°C. The herd has been fully housed since Sunday, 10th November, and are on a diet of 15 kg DM silage (at 41% DM) and 4 kg concentrates.

Comments:

For the dry cows, the diet up until three weeks before calving will consist of 11.97 kg DM of silage (equivalent to 31.5 kg as fed at 38% DM) along with 150 g of dry cow mineral per head per day. This ensures they are meeting their nutritional requirements during the dry period.

BCS:

The herd's BCS was assessed on the 26th of November and 90% of the cows scored between 2.75-3.25 while the remaining 10% scored between 2.25-2.5.

Production:

The herd's performance in 2024 shows a decline compared to 2021, our best year to date, with milk yield dropping from 13.9 kg/cow/day to 9.53 kg/cow/day, a reduction of 31.4%. This decrease has directly impacted milk solids, which fell from 1.35 kg/cow/day to 0.94 kg/cow/day, a 30.4% decline. Milk composition remains relatively stable, with milk fat slightly lower at 5.51% (down from 5.65%) and protein slightly higher at 4.12% (up from 4.04%).