**Project Objectives**

* To develop a sustainable 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

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| **Farm Details Week 26th – 2nd July 2023** |
| **Stocking rate on MP (LU/ha)** | **3.48** |
| **Farm Cover (DM/ha)** | **494** |
| **Growth Rate (DM/ha/day)** | **60** |
| **Demand (DM/ha/day)** | **49** |
| **Average grass DM (%)** | **25** |
| **Average Concentrate fed (kg/day)** | **3.7** |
| **Average DIM** | **133** |

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| **Cow Details Week 19th - 25th June 2023** |
| **Yield (kg/cow/day)** | **26.8** |
| **Fat (%)** | **4.93** |
| **Protein (%)** | **3.63** |
| **MS (kg/day)** | **2.29** |
| **SCC** | **144,145** |

**Grassland Management:**

Three paddocks (2.77 ha) were topped due to stemmy residuals. One paddock (1.06 ha) was closed off for silage with an average cover of 1800 kg DM/ha and will be cut as soon as weather allows . Grass quality is improving gradually with the continued rainfall and topping after grazing. Farm cover is a little low however growth rates are steadily increasing. The reseeds were grazed for the first time this week with a good clover strike being observed in both paddocks. Cows were offered an average allocation of 15.7 kg DM/d of grass last week with an average DM of 25%. Cows are being fed on average 3.7 kg/day of a 14% crude protein nut in the parlour which is formulated with native ingredients. Cows > 120 DIM are at 3.5 kg/d (46/57), cows at 91 - 120 DIM are on 6 kg/day (9/57) and cows at 61 - 90 DIM are on 7.5 kg/day (2/57 cows).

**Comments**:

The breeding season started on 2nd of May, it has been decided based on current scanning results and that breeding will finish at the end of week 9. Heat detection is being done using automatic activity monitoring and scratch cards, scratch cards are read in the collecting yard before milking. Breeding is done by AI and is carried out twice daily. The bulls selected for this year are:

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| --- | --- |
| Bull | Name |
| FR5857 | OLCASTLETOWN TIERNAN |
| FR6622 | BAWNGARRA BRÓD |
| FR8613 | S-S-I URA GRASSFIRE-ET |
| FR8562 | OCD LEGACY MASSEY-ET |
| FR7905 | (IG)BUNACLOY ALIBI |

The weighted EBI averages of the bulls are:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EBI €  | Milk SI  | Fert SI  | Health €  | Milk kg  | Fat kg  | Prot kg  | F+P kg  | F%  | P%  |
| 264 | 123 | 105 | 16 | 303 | 24 | 17 | 41 | 0.20 | 0.11 |

These bulls were selected for high milk fat and protein and milk PTA to ensure the milk fat and protein % stay positive in addition to selecting for balanced milk production and fertility sub-index values.

The replacement heifers, the first lactation cows and 6 elite cows will receive HF sexed semen. The rest of the cows will receive beef semen. The replacement heifers were on an oestrus synchronisation programme and were AI’d on Friday May 5th.

In week 9 of breeding season, no cow was submitted for first service and there were 3 repeat serves. The three-week (2nd – 22nd May) submission rate is 89% or 50 cows, while the 24-day (2nd – 29th May) submission rate is 96% or 54 cows. At a 30-day scan on the 28th June, of the 46/56 eligible cows, 45 or 80% of the herd, were scanned pregnant in the first 5 weeks.

For more details on the High Output Systems Research Herd visit

https://www.ucd.ie/agfood/about/lyonsresearchfarm/lyonsdairyherd/