

Farming Connect Dairy Demonstration Sites

MOUNT JOY FARM

Demonstration Site: MOUNT JOY FARM
- William Hannah and family

Technical Officer: Simon Pitt

Project Title:

Selecting better replacements within a spring calving grass-based herd

Introduction to project:

Breeding better cows within spring block calving herds has its challenges as many herds are either only part milk recorded or don't record at all. Fertility is the main driver for selection to ensure that as many cows and heifers as possible calve within nine weeks. This has led to genetic progress for production and health traits being driven solely from the sire's side. Highlighting superior individuals and groups of females to breed for continuous genetic improvement is key to ensuring optimum Kilogrammes of Milk Solids are produced per cow, without forgetting her need to calve every spring.

Project Objectives:

A project at William Hannah's 300-cow herd of NZ type Friesians will focus on genotyping an entire crop of in-calf heifers to select the individuals to keep and those to sell as surplus. In the past, selection has been based on appearance and calving date, but by using the Herd Genetic Report, heifers will be ranked with increased reliability on

the Spring Calving Index (£SCI) which is the UK's bespoke index for spring block herds. The project intends to demonstrate that genetic merit, which is an AHDB optimal system KPI, will show an increase for average herd £SCI at the end of the three-year project. Another aspect of the work at Mount Joy will focus on ranking cows and milking heifers on efficiency, using the yardstick of Kilogrammes of Milk Solids produced per Kilogramme of Liveweight (kgMS/kgLW) which will be done by weighing cows at 100 days in-milk and using completed 305-day lactation records for a total Fat and Protein kg. Again, targeting sexed semen on these cows will ensure female offspring from efficient and fertile animals are kept in the herd.

Key Performance Indicators set:

- £SCI Herd genetic gain
- kgMS/kgLW



Fig 1. William Hannah, Mount Joy

TIMELINE AND MILESTONES:

September 2019

- Baseline study

December 2019

- Tissue sampling in-calf heifers for genomic evaluation

November 2019

- Evaluation of current Parent Average (PA) herd genetics using AHDB herd genetic report

January 2020

- Return of genomic evaluation and identification of lower genetic merit animals

Spring 2020

- Sale of surplus in-calf heifers
- Weigh all milking animals at 100 days in milk average

July 14 2020

- Demonstration Site open day

Winter 2020

- Rank cows on kgMS/kgLW to assist with surplus stock selection and following year breeding plan

January 2021

- Project review