

% of all activity in this quarter relevant to the dairy sector

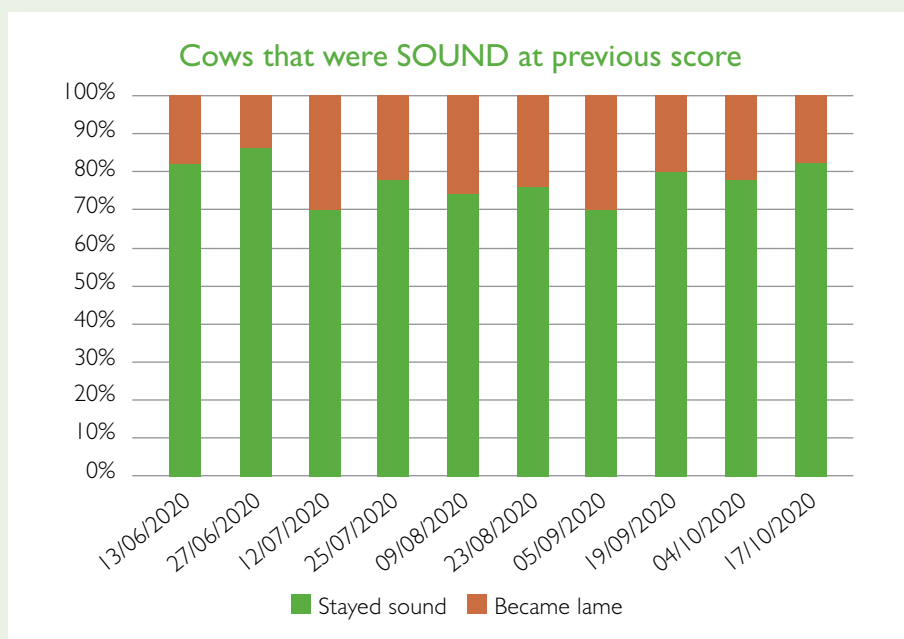


Demonstration Network

Graig Olway: Reducing lameness in a robotic milking dairy herd

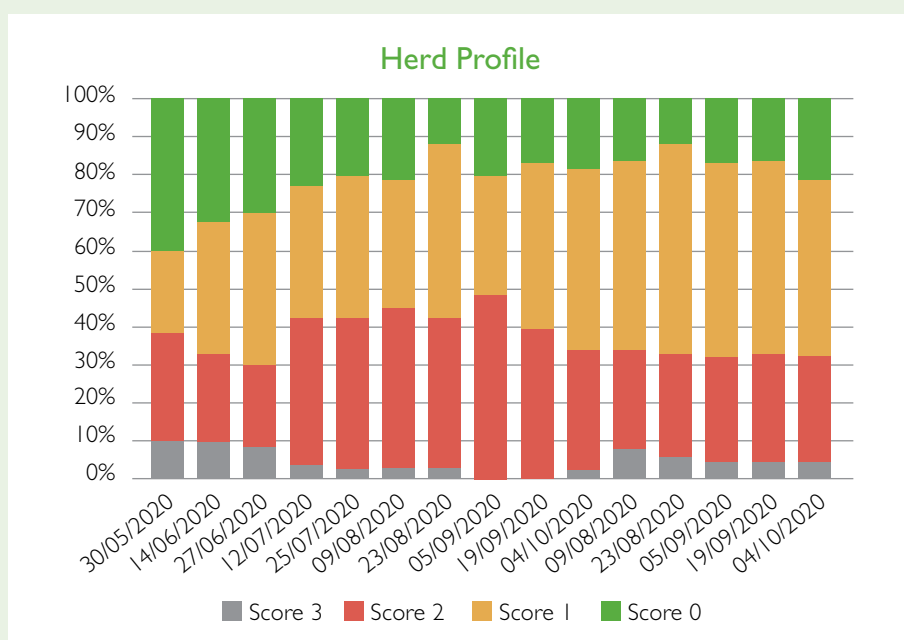
Graig Olway demonstration site, located near Usk, is currently running a project looking at how to reduce lameness within their dairy herd. The farm has implemented a fortnightly foot trimming routine which has enabled them to decrease the number of cows at mobility score 2 and 3 by 14% between September and December. The results of the project are evidently showing that fewer cows are becoming lame and more cows are staying sound as shown in the graph below.

Figure 1. Comparison on number of lame and sound cows at previous scores.



The project has also seen that fewer cows are chronically lame and the new case rate has come down. The chronic cows are also healing well with no new chronic cases seen since the summer. In September, nearly 1 in 3 sound cows became lame, and at the end of November this figure was 1 in 8 which is a great improvement. Figure 2 shows the improvement in the herd's mobility scores over the past six months; it's evident that there's a big shift from scores 2 and 3 to scores 1 and 0. The improvement in lameness cases within the herd will have a significant impact on the farm's welfare and production.

Figure 2. Average herd scores from June to December 2020.



Nantglas: Improving fertility in a split block calving herd

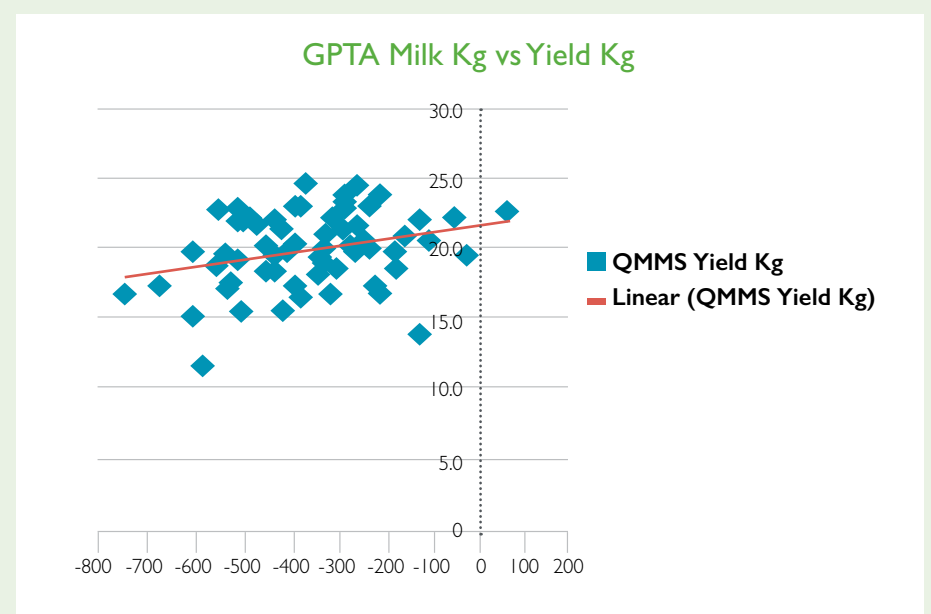
Iwan is aiming to boost the 6-week calving % and 6-week in-calf %. Changes are being implemented to several management practices, as there is no single cause of poor fertility, aiming to tighten the calving block whilst ensuring the empty % is below 10%. Autumn calving started on 14 August and by 21 September, 82 out of 110 cows had calved (74%) meaning autumn calving was slightly longer than desired. However, by selling 8 of the late calvers, the 6-week calving % increased to 87% which is close to the 90% key performance indicator (KPI) set for the farm. Spring calving cows were scanned on 17 September which demonstrated a 15% empty rate, higher than anticipated. However, a 71% 6-week in-calf rate (target 78%) was achieved and 28 out of 29 heifers were in-calf. On 1 July after 6 weeks of AI, 31 cows were empty, with the bull only covering 15, which significantly influenced the empty rate. This has raised concerns on the bull's fertility and will be examined. Cows were milking well during the service period, but a Pica issue on farm may have had an impact on cow fertility also.

The next steps for the project include observing the results of the work done. We anticipate scanning results to show that Iwan should be calving 100 cows in 40 days, and the results of the mating plan, and heifer synchronising programme. Iwan will also be blood sampling the in-calf heifers due to calve in the spring for Neospora and testing for IBR through the bulk milk tanks.

Mountjoy: Selecting better replacements within a spring calving grass-based herd

Early comparisons of actual production and genomic results at Mountjoy have highlighted good correlations between genetics and performance for fat and protein %. 71 heifers that were genomically tested as in-calf heifers in December 2019 have now returned 3 milk recordings worth of production data to compare with genomic predicted transmitting ability (gPTA), see Graph 3. Mountjoy is one of the first spring calving grass based herds in Wales to utilise genomic selection to drive genetic gain in production efficiency. A goal of high milk solids to live weight ratio (kgMS/kgLW) animals will ensure improved Feed Conversion Efficiency (FCE) and less methane output per kgMS. By continued use of genomic selection it will be possible to identify and rank the heifers on milk composition, lifespan and health traits earlier ensuring only the most efficient heifers are retained and bred to the milking herd.

Graph 3: Correlation between genomic milk GPTA and average daily milk yield based on three recordings



Assessing the potential of genomic testing dairy heifers to increase genetic gains and financial returns



Historically, estimated breeding values have been used for making breeding decisions but these parent averages are only 35% reliable when it comes to predicting future performance. With the introduction of genomic DNA testing comes an opportunity to increase the reliability of breeding values from 35% to between 60-70%. However, genomic testing adds an extra £30 onto rearing costs which cannot be recouped until the heifer's first lactation two years later. This project investigated whether the additional costs are worth it.

Project findings;

- 21 heifers in the project had mis-identified sires on their parentage – this is important if information is going to be accurate and reliable for future decision making
- A hypothetical breeding scenario resulted in 23% of heifers being incorrectly bred, which resulted in lost £PLI potential of £6,914 for the next generation
- Cost benefit of genomic testing was calculated at £19.39 per animal

A video was produced highlighting the benefits that the farmers gained from taking part in the project. Click [here](#) to watch.

Discussion Groups



26 held with **217** ATTENDEES
DAIRY DISCUSSION GROUP MEETINGS

Number of Dairy Discussion Groups: 13



Case Study

Newtown dairy discussion group – Renewable energy: the options

At this discussion group meeting, David Jones from Hafod Renewables discussed some of the main technologies available at the moment and their benefits with group members. These included:

- Solar PV (small scale)
 - Could lead to an annual saving of around £1,800.
- Solar thermal
 - Addition of heat incentive (income of around £800 a year).
 - This system could reduce energy usage by £1,360 and reduce the need to import electricity.
- Solar PV (larger scale)
 - Example: A farm with an 80kW system providing 60% of farm total energy requirements, leads to a saving of £11,000 per annum.
- Ground source heat pump
 - Fuel savings of around £3,000 a year.
- Battery storage
 - This works by storing energy in order to utilise it at another time.

Following the presentation, group members had an opportunity to ask questions about the various systems. They were also reminded about the 1-2-1 digital surgeries that are on offer with Farming Connect.

Surgeries

21 Surgeries Held

Key topics included:



2 Accountancy surgeries	4 Planning surgeries	3 Legal and succession surgeries
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A dairy business received advice from an accountant in order to review their business and to get a better understanding of their farm accounts and taxes.

Surgeries are cross-sectoral events and a mixture of farmers from all sectors attend, including farmers from the dairy sector.

Mentoring Programme



102 DAIRY FARMERS

currently being mentored



Click [here](#) to access the full Mentor Directory.

Animal Health & Welfare Workshops



15 WORKSHOPS

held with

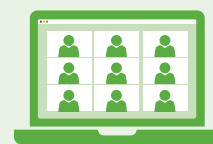


122 ATTENDEES

Workshops held:

Bovine Viral Diarrhoea	Reducing Lameness in Dairy Cattle
Reducing Mastitis in Dairy Cattle	Youngstock Health

Webinars



50 DAIRY THEMED WEBINARS

held with



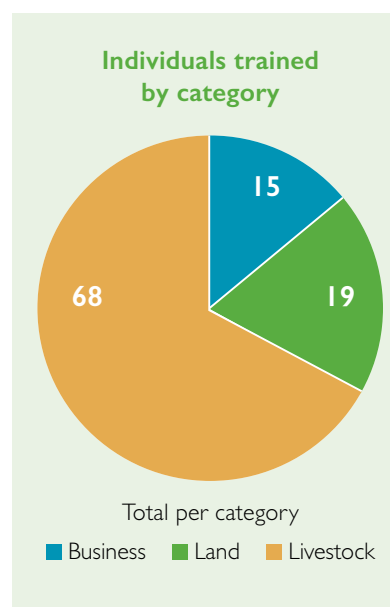
1698 VIEWERS

Examples of webinars held include:

Mobility Matters: Tackling lameness in the dairy herd	Fodder beet for beef cattle
Prevention and control of new mastitis infections during housing	

Training

During this period, **102** instances of face to face training were delivered to the Dairy sector.



The most popular courses in each category were:

Individuals trained:

ROUGH TERRAIN TELESCOPIC LIFT TRUCK	14
SAFE USE OF VET & MED	17
MARKETING YOUR BUSINESS	3
DIY AI	24

E-learning

Some of the e-learning courses completed within this period:

Johne's disease in cattle	Cattle lameness
Mastitis in cattle	Slurry management

Click [here](#) to visit the website.

