DAIRY DASHBOARD

May 2021– August 2021

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

48% DAIRY ACTIVITY

1,771 DAIRY FARMS REGISTERED WITH FARMING CONNECT

Webinars

14 DAIRY THEMED WEBINARS held with **270** VIEWERS

Examples of webinars held include:

The use of bolus technology to improve conception rates, calving period and herd health at Moelogan Fawr

Control of Agricultural Pollution Regulations – what is changing and how can they be implemented?

Animal Health & Welfare Workshops

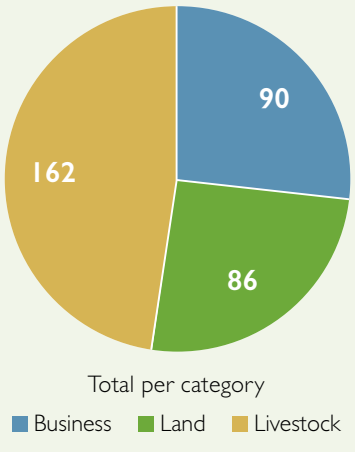
9 DIARY WORKSHOPS held with **114** ATTENDEES

- Animal Health Planning
- Bovine TB
- Reducing Lameness in Dairy Cattle
- Youngstock health

Training

During this period, **99** instances of face to face training were delivered to the Dairy sector.

Individuals trained by category



The most popular courses in each category were:

- Emergency First Aid
- Rough terrain telescopic lift truck
- DIY AI

E-learning

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

- BODY CONDITION SCORING
- CALF HOUSING
- DISBUDDING CALVES
- MASTITIS IN CATTLE

Click here to visit the website.

EIP Wales

Lameness in dairy cattle

Staying one step ahead: Tackling foot health in dairy cattle

A group of 24 farmers across southeast Wales are taking part in a two year project to assess how two new methods of receiving advice can make a difference on their farms. Working both with their individual vets and veterinary consultant Sara Pedersen of Farm Dynamics, they have all chosen their preferred method of knowledge transfer. To assess how this influences their knowledge, behaviour and ultimately lameness in their herds, all farms taking part will have their herd mobility scored at the start, middle and end of the project as well as take part in a pre-and post-project survey.

The farmers taking part are involved in one of 4 different Groups:

Group 1: This is the control group who will be monitored throughout the project via mobility scoring but receive no additional input.

Group 2: This group is receiving advice through the AHDB Healthy Feet Lite (HFLite) programme which involves working with their own trained vet (Mobility Mentor) to determine the key risk factors for lameness on their farm and then agree on a bespoke action plan.

Group 3: Over the course of the project the farmers in this group will attend 12 Farmer Led Action Group (FLAG) meetings with each member of the group hosting twice. The meetings will have a facilitator present but as the focus is peer to peer learning no advice will be given. Each meeting will look at foot health successes and challenges on the host farm before an action plan being suggested by the group and agreed by the host.

Group 4: This group is a combination of Groups 2 and 3 so farms in this group will undertake the HFLite with their vet and attend FLAG meetings.

The farms are already seeing positive differences in the lameness incidences in their herds and further monitoring and participation in the groups will continue over the forthcoming months.

Figure 1. Milking unit

Mentoring Programme

5 NEW DAIRY FARMERS ACCESSING THE MENTORING PROGRAMME

134 DAIRY FARMERS CURRENTLY BEING MENTORED

Key topics included:

- New milking system
- Conversion to dairy, setting up a milk vending enterprise
- Diversifying to the dairy sector through the establishment of a joint venture

Click here to access the full Mentor Directory

Demonstration Network

Mountjoy: Genomically testing heifers

Genomically testing replacements has flagged up a genomic profitable lifetime index gap of up to £286 between heifers at a Pembrokeshire dairy farm. Their aim is to fast-track genetic gain in their spring-calving herd and improve the lifetime productivity of cows by utilising information about an animal's genetic merit before first service.

Based on £PLI, the top ranked animal had a +£282 genomic £PLI compared to the bottom at £-4, resulting in a lifetime earning potential gap of £286 between the two. There was also a big range on milk solids scores between heifers at either end, from a high of +61kg to a low of -757kg.

As the farm supplies Arla on a solids-based contract, identifying animals which have the best fat and protein traits can make a big difference to the bottom line. Even when set against a testing cost of £25-£30 a head, there can be a big cost benefit from genomic testing.

To test how well the genomic data reflected the actual performance, in-calf heifers were also tested to allow the results to be compared against their QMMS milk recording data from 2021. Andy Dodd of The Farm Consultancy Group, who analysed the data, noted that the trend on fat and protein showed a "reasonable" correlation between genomic prediction and first lactation data. In the long term, the use of genomic testing on females would offer similar benefits to testing bulls, enabling highly accurate selection of replacements and selecting for only the best replacement heifers and those that best suit the farming system can have a positive effect on farm profitability.

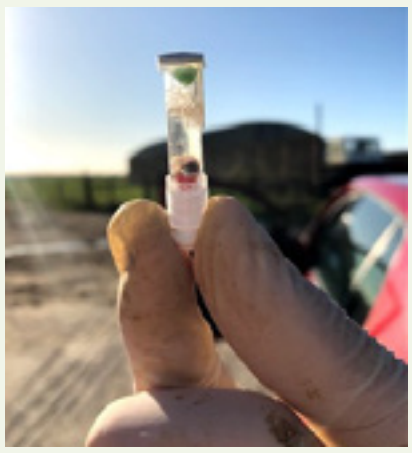


Figure 1. Genomic applicator and specimen tubes.

Erw Fawr: Trialling specialist cow recognition and behavior software

Professor George Oikonomou from the University of Liverpool has been working with Ceredig Evans at Erw Fawr in trialling the CattleEye software and assessing its impact on animal health and performance. The foot trimmer who regularly visits once a month will now attend twice monthly for the duration of the project to treat cows identified by CattleEye.

Manual mobility scoring often takes place once or twice a month. Ideally, the person assigned to the task should not be involved with the cows directly and should be trained to identify sufficient sensitivity. CattleEye involves deep machine learning and Artificial Intelligence which allows the software to identify cows from colour markings without the need for a collar, tag or pedometer. It is then able to judge the cow's mobility using reference algorithms from thousands of cows linked to the system. This is also done quietly through an objective and unbiased lens and will never rush or affect a cow's usual gait from any human presence nearby. Ceredig can log in at any time to see a mobility report for the previous milking and check for any progressive signs of lameness and signs of healing post treatment. As soon as the software notices a change in mobility, Ceredig can assess the cow's foot to investigate days, possibly weeks, before any human visual observation of lameness.

Figure 2 & 3. CattleEye in action at Erw Fawr.

Graig Olway: New slurry store aids business growth

Upgrading slurry storage facilities is facilitating herd expansion at a Graig Olway demonstration farm where farmer Russell Morgan wants to increase his herd size by 50 cows plus heifer replacements.

To achieve this he is scaling up slurry storage volume, by creating a 6,500m³ lined earthbank lagoon. The infrastructure, which was completed at the end of summer 2021, has the capacity to hold at least five months' worth of the slurry produced from the expanded herd.

The project work has been supported by Eoin Murphy, ADAS and among the factors they considered were the measures needed to reduce the runoff of clean water into the lagoon, selecting an appropriate site for the lagoon and ensuring it complied with planning and building warrant legislation.

The system that had been in place was only capable of holding 15% of the slurry produced in the five-month storage period required by the new Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 for 300 dairy cows and 200 head of youngstock. In calculating capacity for the new lagoon, several factors had to be taken into account including the volume of lightly fouled water such as silage clamp runoff, parlour washings and slurry from open feed yards. The annual rainfall and freeboard requirement also had to be factored in – lined earth bank lagoons require a freeboard of 750mm and to have the capacity to contain surface rainfall. Overall, this required an excavation of 45m wide, 60m long and a depth of 7m. The site where the lagoon has been established has shallow soil with a high stone content – soil sampling indicated a need for the lagoon to be fully lined and for leak detection system to be built in.

Figure 4. Slurry lagoon lining being installed at Graig Olway

Discussion Groups

42 DAIRY DISCUSSION GROUP MEETINGS held with **538** ATTENDEES

Case Study

Cow signals was the focus of a meeting held with the Robot Milking Group during August. Cow signals trained vet Sotirios Karvountzis, of Mendip Vets, was the visiting expert. He began the meeting by explaining the principles of cow signals – how to read a cow's body language and behaviour to improve their surroundings or routine, which can lead to improvements in longevity, production and, ultimately, profitability.

The cow signals diamond features six areas which are based on cow freedoms, underpinned by cow health. The six areas are air, light, rest, space, water and feed.

The group were then split into four groups, given a questionnaire and walked around the robot shed, scoring each area of the cow signals diamond and three important areas of cow health. After completing their scoring, the group then compared their scores. Sotirios explained the importance of each area and the minor changes that could be made by the host farm to help improve their cow signals' score.

The group also looked at hygiene, wounds and lameness as part of their scoring. Some issues will be easier and more economical to rectify than others. Sotirios said that cow signals is all about making marginal gains in as many areas as possible to have a bigger overall gain. Space and rest are the areas likely to cost the most money as they involve building, but addressing issues in the other areas can often make a big difference. Small improvements and continually monitoring cow behaviour will add up to improved health and welfare and herd production.

Cronfa Amaethyddol Ewrop ar gyfer Datblygu Gwledig:
Ewrop yn Buddsoddi mewn Ardaloedd Gwledig
European Agricultural Fund for Rural Development:
Europe Investing in Rural Areas
Llywodraeth Cymru
Welsh Government