LIVESTOCK

August 2021 – November 2021

Webinars

9 LIVESTOCK WEBINARS HELD with **120** VIEWERS

Examples of webinars held include:

- Planning ahead: Pre-tupping lameness management
- Planning for winter housing – alternative bedding
- Sustainable fluke control in sheep and cattle
- Pig housing for good health and welfare

On-farm events (relevant to Livestock theme)

12 ON-FARM HELD with **120** VIEWERS

Examples of events held include:

- Reducing ammonia emissions in a laying unit – Wern, Welshpool
- Demonstration Site open day – Moelogan Fawr, Llanrwst
- Slurry storage solutions – Graig Olway, Usk
- How artificial intelligence technology can help reduce cases of on-farm lameness – Erw Fawr, Anglesey

Knowledge Exchange Hub

- MAPPING FLUKE PARASITES FOR IMPROVED AND SUSTAINABLE CONTROL
- AGRICULTURAL INFRASTRUCTURE: HAPPY HOMES HELP HEALTH
- AGRICULTURAL INFRASTRUCTURE: INTEGRATING TECHNOLOGY FOR ANIMAL HEALTH AND WELLBEING
- FEASTING LIKE KINGS – HOW TO PREVENT BIRDS FEEDING ON TMRS
- USING SEXED SEMEN AND GENETIC TECHNOLOGIES TO IMPROVE DAIRY AND BEEF HERDS

Advisory Service

Number of businesses who have received support through the Livestock Categories of the Advisory Service during this period:

11 individuals received one-to-one support through the Livestock Categories of the Advisory Service during this period.

13 groups made up of 40 individuals received support through the Livestock Categories of the Advisory Service during this period.

Feedback from businesses on delivery of this Advisory service:

"Useful to create a plan moving forward for herd success and standardising procedures"

Demonstration Network

Reducing cases of milk fever and pica at Nantglas

Using multiple milk fever prevention strategies is paying dividends at Demonstration Site Nanglas, where Iwan Francis, who produces milk on a split block calving system, had experienced high levels of milk fever in his herd around calving.

Figure 1. Iwan Francis Farming Connect demonstration farmer.

Through his project work as a Farming Connect demonstration farmer, Mr Francis introduced a series of measures for magnesium supplementation pre-calving, as advised by vet Kate Burnby. Forages with low potassium, produced later in the season and on ground with lower fertiliser inputs, were produced as feed for dry cows. Ms Burnby, a vet specialising in cow fertility, recommends that this forage should come from more mature leys and grasses. Mr Francis adds a measured amount of magnesium chloride to the drinking water of his dry cows daily: to overcome the issue of autumn calving cows drinking less water at grass, he now only calves the heifers and second calvers at pasture and houses the rest of the herd for two weeks before calving and feeds them silage.

As this feed is drier than grass, it encourages the cows to drink more of the magnesium-treated water. Cows considered to be 'high-risk' are also given magnesium boluses a couple of weeks before calving. The 'belt-and-braces' approach to preventing milk fever has been successful with very few cases. Only five cows required calcium treatment after calving, compared to 14 the previous year, and all recovered very quickly with treatment – there were no 'downer' cows or losses.

Low levels of magnesium had also been identified as the antagonist in a recurring problem with pica – a condition that had been causing Mr Francis' cattle to eat large quantities of soil, stones and other objects in the spring and early summer. To better understand the issue, the available nutrients and minerals in the diet were analysed. Pica is often assumed to be linked to a phosphorous deficiency, but the monitoring at Nantglas had also identified magnesium as the antagonist. In the fresh grass samples analysed, magnesium levels were very low, and there were also low levels of copper, zinc, selenium and cobalt.

Grassland and soil consultant Nigel Howells, who has been advising on this project, suggests this situation corresponded with the mineral grass analysis on other farms he had worked with, who had also experienced problems with pica.

Soil magnesium and phosphorous levels at Nantglas in the samples analysed were at index 2; however, for the soil to be at its most productive, the level should ideally be 3.The soil was found to have a high residual level of sulphur. Mr Howells advises farmers to consider the type of fertiliser they apply, since some contain sulphur. The calcium-to-magnesium balance in the soil at Nantglas was also investigated, and showed a balance of 15:1, compared to the ideal of 7:1. Farmers are advised to discuss both macro and trace element supplementation with their farm vet as a route to balancing out deficiencies until the correct balance can be achieved in grass.

Management Exchange

Ceredig Evans: This Management Exchange visits a variety of dairy farms that are using different systems to his own, which achieve high yields from forage and grazing, as well as considering the benefits of block calving to see if this is a system that could and might be able to be implemented in his own business. By visiting businesses that have previously received guidance in making the right business moves and are achieving good results, Ceredig seeks to take on board new advice to help make new and improved decisions that will benefit his business. To view Ceredig's final report, please click here.

EIP Wales

26 APPROVED LIVESTOCK PROJECTS WORKING with **173** FARMERS AND FORESTERS

Improving fertility and calving rates of dairy herds in south west Wales through a method of early pregnancy diagnosis using pregnancy-specific protein B (PSPB)

PSPB is a chemical that is produced by a pregnant ruminant animal, and provides a reliable predictor of pregnancy.

Four dairy farmers in Carmarthenshire, with a total herd size of about 1,700 animals, have been working with Dr Sotirios Karvountzis of Mendip Vets, Llandeilo, to investigate whether PSPB can be used as an early indicator of pregnancy in dairy cows, within 30 and 120 days post-service. Early recognition of infertility in a dairy herd can lead to timely and appropriate treatments in consultation with the farm's vet.

At the start of the project, the cows were split at random into two groups: pregnancy diagnosis by ultrasound scanning and pregnancy diagnosis by blood sample. The actual calving dates of the animals were used as the benchmark for comparison with the results of both methods.

Each method returned three results: 'positive' for when a pregnancy was detected, 'negative' for when the animal was either not pregnant or that it was too early to detect a pregnancy, and finally 're-check', for when a suspected embryonic death or foetal reabsorption was taking place.

	PSPB	Ultrasound scanning
Accuracy at predicting a positive result	94%	95%
Accuracy at predicting a negative result	87%	86%

The results compared very favourably, and there are disadvantages and advantages with both methods ,so ultimately it comes down to which method suits the farmer best.

	Disadvantages	Advantages
PSPB	• Requires a blood sample, which requires training or a vet to collect • Cannot determine stage of pregnancy, twinning rate or gender	• Sample collection is quick, and can take place anytime, minimising disturbance to routine • Result is returned from lab quickly and sent to vet and farmer for discussion
Ultrasound scanning	• Requires operator experience • Daily routines of animals disrupted while they wait for examination	• Can identify twins (or multiples), stage of pregnancy and gender

Such a protocol provides an additional pregnancy diagnosis tool that is inexpensive and pro-active, resulting in better pregnancy rates, but also allows the herdsperson to work closely with the farm's veterinary surgeon. The ultimate result is one of 'win-win' for all parties involved – the veterinary surgeon, the farmer and the cow. The animal's behaviour and productivity is inhibited minimally, the farm enterprise can save money, and the veterinary surgeon can continue their involvement and oversight of the herd.

Animal health & welfare workshops

32 WORKSHOPS held with **382** ATTENDEES

Examples of workshops held:

- Antibiotic Resistance
- Bovine Viral Diarrhoea (BVD)
- Rearing Healthy Calves and Maximising Profit
- Sheep Lameness
- Sheep Parasite Control Part 2: Sheep Scab, Lice and Liver Fluke

Discussion Groups

HCC held a series of Red Meat Farmer Forums that were held on farms across Wales in October 2021. It was an opportunity to discuss and share ideas on the sector's future. **Grŵp Bîff Hiraethog** Discussion Group visited the event held on group member Paul Williams' farm at Cae Haidd.

In a crucial time for our red meat industry, farmers are preparing for a post-COVID, post-Brexit era. The sustainability agenda is ever increasing in importance. HCC were seeking to hear the views of levy-payers and others, and discuss what they saw as the opportunities and challenges for the sector in evolving times.

HCC representatives set the scene on consumer trends and the market outlook, followed by an open discussion with attendees regarding the future direction of HCC's plans for marketing and industry development activity. One interesting point of discussion was how HCC had opted to support Meat Free Mondays in Welsh schools, on the basis that better quality of sustainably sourced local meat should be used for the remaining four days.

This was followed by an on-farm update by husband-and-wife team Paul and Dwynwen Williams, followed by a farm tour of the new farm infrastructure development to support their beef production and calf-rearing enterprise. This has been funded by the Welsh Government Sustainable Production Grant.

Group members greatly enjoyed the presentations from both HCC representatives, and the host farmers. It opened up a discussion in the following days on their WhatsApp chat group on issues covered within the meeting, and how the group members are preparing for upcoming challenges and market demands within their own businesses.

E-learning

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

- TRACE ELEMENTS IN SHEEP
- CLIMATE CHANGE AND LIVESTOCK
- MASTITIS IN CATTLE
- FEED EFFICIENCY

Click here to visit the website.

Training

Courses	Number of individuals trained during this period
DIY AI	38
Safe use of vet & med	23
Cattle foot trimming	21
Safe use of sheep dip	21
Sheep scanning	14

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