

Demonstration Network

Reducing vices in a pig unit

Llwyn yr Arth focus site in Anglesey recently changed the ration for their pigs to exclude zinc and copper in response to a forthcoming ban on feeding these products. The surprise outcome of this was that it appeared to show an increase in tail biting and chewing amongst their pigs. The change to the diet resulted in an increase in days to slaughter of 10-15 days and they also needed to use more antibiotics to treat infections.

Working with Farming Connect and their vet, Eddie Devlin from Bodrwnsiwn Vets, they investigated the health status of the herd by undertaking post mortems to see if there were any underlying health issues. Test results showed evidence of enzootic pneumonia and distended large intestines.

The advice was to re-introduce zinc back into the diet and target vaccinations earlier to ensure piglets were covered from a younger age. Biting is no longer an issue and antibiotic use has dropped. Investigations will continue to consider alternative ration components to ensure the herd can cope with future regulations.



Reducing lameness in the dairy herd

At Graig Olway demonstration site, near Usk, reducing lameness levels and improving cow comfort have been identified as two of the key goals for improving welfare and increasing milk yields. Due to the voluntary milking system, lame cows are likely to visit the robot on fewer occasions than healthy cows, therefore, the impact that lameness will be having within the herd will be greater.

In January 2020 all the cows were mobility scored and assessed for signs of digital dermatitis whilst feeding. This was undertaken by Sara Pederson, an independent vet specialising in lameness.



This was followed up a week later by assessing all cows' feet in the crush to see how the visual scoring had fared. All cows with visible signs of digital dermatitis were treated with licensed topical antibiotics and closely monitored for two consecutive days with repeat treatments applied where necessary.



The next stage of the project aims to develop an action plan between the farmer, farm vet and foot trimmer. Outcomes and updates will be reported via the Farming Connect website.

Selecting for efficient genetics in a spring calving herd

The cost of rearing a dairy heifer replacement is estimated to be around £1,800 so making targeted breeding decisions to ensure the calves that are reared will perform once they enter the herd is one way of streamlining the business.



Mountjoy focus site, near Haverfordwest, is using genomic selection to identify heifer calves that will be the most productive to rear. Samples were collected in December 2019 using specific applicators to punch a piece of tissue from the calf's ear.

Analysis is being undertaken and further details will be available on the Farming Connect website as they become available.

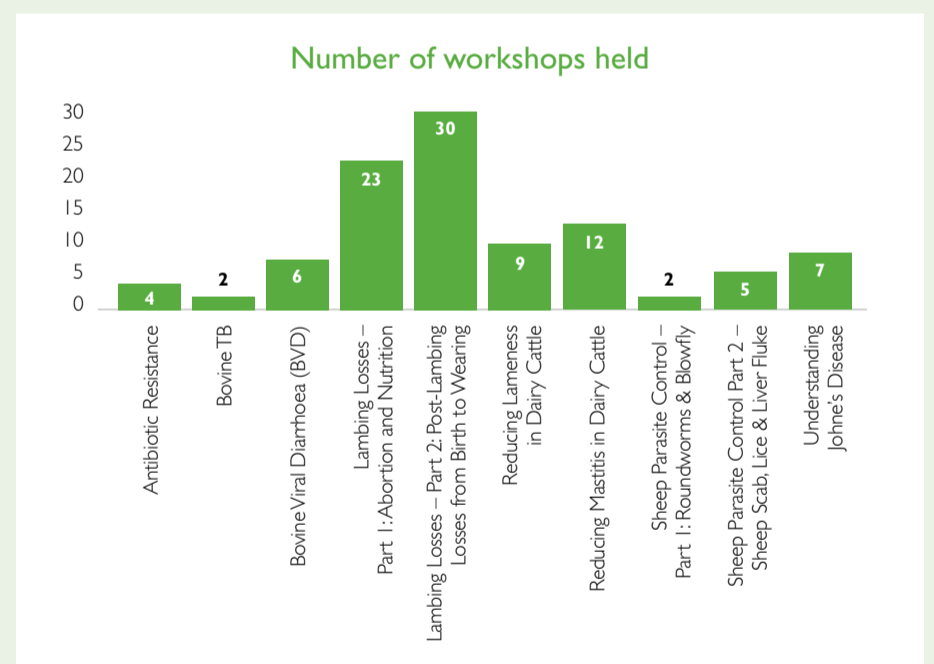
Knowledge Exchange Hub

Unmanned aerial vehicles (UAVs) – A bird's-eye view in agriculture

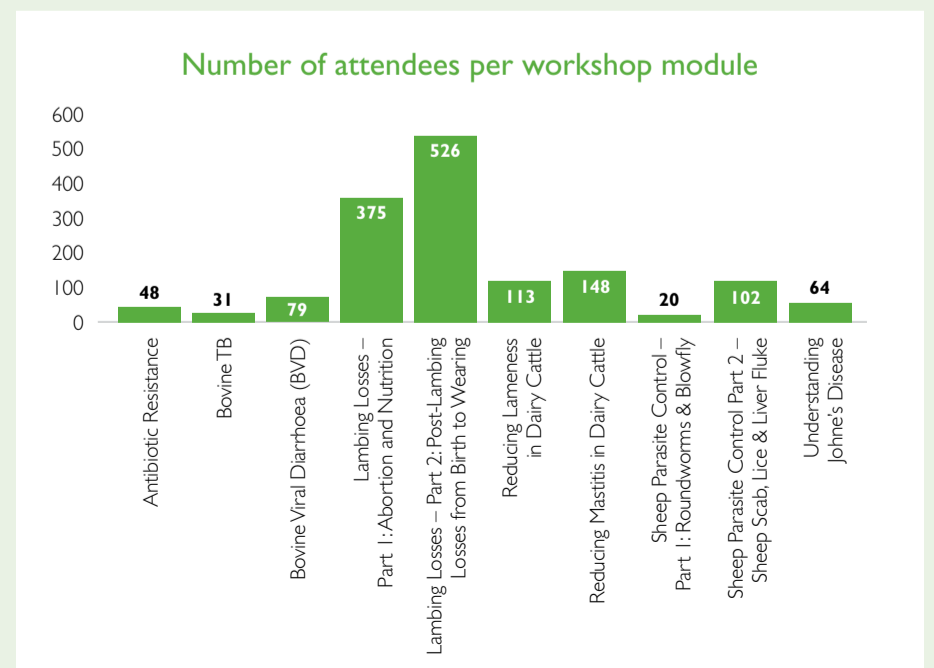
UAVs or drones have the potential to play a role in many agricultural systems including livestock management. This article looks at the potential uses and the legislative requirements.

Animal Health & Welfare Workshops

105 Animal Health & Welfare Training workshops were held during this period via local vet practices across Wales. *Lambing Losses Part 1: Abortion & Nutrition* and *Lambing Losses Part 2: Post-lambing losses from birth to weaning* were the two most popular modules, due to seasonality (Graph 1).



The graph below shows a breakdown of beneficiaries per module showing the vast number of beneficiaries attending the workshops.



**6**  
PROJECTS APPROVED  
DURING THIS PERIOD

working  
with

**20**  
FARMERS AND  
FORESTERS



### Implementing advanced nutritional management in the Welsh sheep industry

Twelve farmers from across north Wales have been using a progressive approach to nutritional planning in their breeding ewes which involves investigating the individual flock needs for trace elements whilst balancing this against other causes of poor performance.

The flocks were all tested pre-tupping in 2018 and supplementation requirements varied from some needing copper, some selenium and some zinc. Bespoke plans were developed for each farm and in some cases a reduction in the number of doses was justified, saving farmers time and money.

Blood samples were taken pre lambing and further adjustments made following these results. For example, some sheep were at risk of pregnancy toxoemia and adjustments to the feed ration was made to resolve this.

Post weaning, more blood samples were taken as well as routine parasite monitoring and all of this helped to build the picture of how the flocks were performing under the new nutrition plans.

One positive change that has been seen is the body condition scores of ewes at tupping in 2019 compared to 2018 as shown in the charts below.

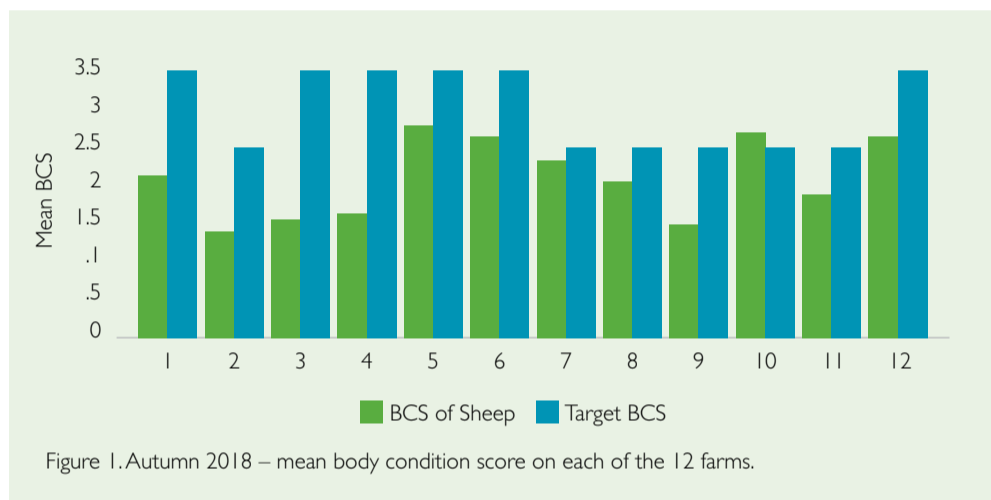


Figure 1. Autumn 2018 – mean body condition score on each of the 12 farms.

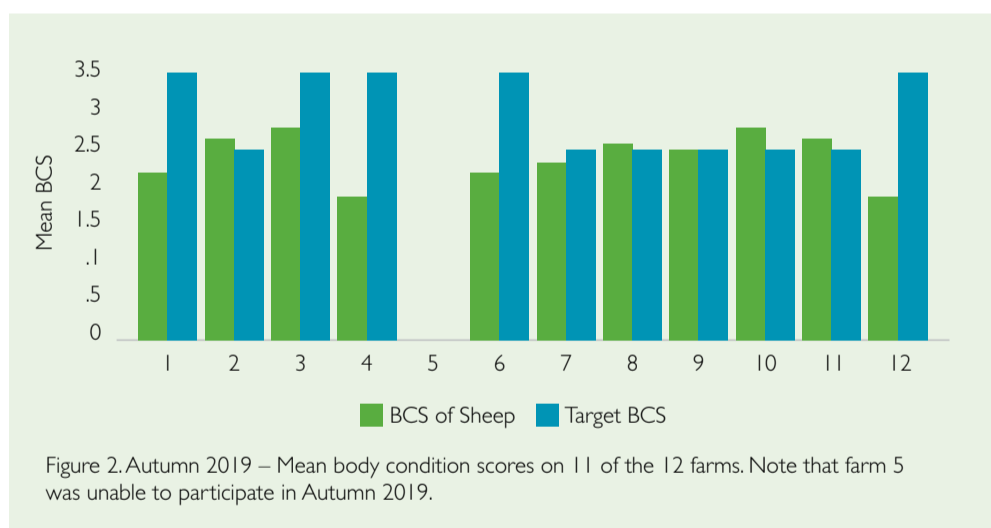


Figure 2. Autumn 2019 – Mean body condition scores on 11 of the 12 farms. Note that farm 5 was unable to participate in Autumn 2019.

### Discussion Groups

#### Case Study

Chris Williams, Clinwil Nutrition Services was the guest speaker on trace element supplementation at a Carmarthenshire sheep discussion group. Chris highlighted the role of trace elements, minerals and vitamins to the growth, performance and health of animals and how they form the foundation of a ruminant diet.

Chris explained how trace elements are split into macro minerals (calcium, phosphorus, sodium and magnesium) and micro minerals (Copper, Zinc, Manganese, Cobalt, Iodine, Selenium) and went on to discuss what the consequences of the mineral deficiencies could lead to in livestock.

Ensuring that ruminants have a balanced trace element and vitamin diet is complicated and varies between farms. To create an accurate supplementation programme, forage analysis is critical in determining the levels. This can be done by forage or fresh grass samples. Armed with this knowledge the farmers left this meeting with the confidence to create a bespoke supplementation programme for their farm which should have a dramatic effect on animal performance.

### Advisory Service

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



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



**3 groups received support through the Livestock Categories of the Advisory Service during this period.**

Feedback from businesses on delivery of this Advisory service:

*'Excellent service and advice would be recommended to other farmers.'*

### Management Exchange

#### Reuben Davies's Management Exchange, January 2020

**Topic:** Cheese making courses and practical sheep milking and lambing

**Country:** UK and Ireland



During November 2019 and January 2020, Reuben travelled to both the UK and Ireland to complete his exchange. Firstly, Reuben visited the School of Artisan Foods in the north of England to undertake a cheese-making course which gave him an insight into on-site cheese production.

He then travelled to the town of Cashel Co. Tipperary in Ireland to spend a week working for Michael Crosse, who milks around 1,200 ewes twice a day. Whilst in Ireland he also visited the 'Cashel Blue Cheese' factory. Through his exchange, Reuben has gained valuable knowledge that he hopes will assist him in developing his own sheep milking business and on-site cheese production plant in the future.

Click [here](#) to read Reuben's full report.

### E-learning

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

JOHNE'S DISEASE  
IN SHEEP



PIGLET SURVIVAL  
– SOW NUTRITION



EWE NUTRITION  
DURING PREGNANCY



SHEEP SCAB



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

### Training Courses

Course Name	Number of individuals trained during this period
Safe Use of Sheep Dip	21
Safe Use of Vet & Med	16
DIY AI	16
Cattle Foot Trimming	15
Introduction to worm control and faecal egg counting for sheep producers	11

