**Working with vets and farmers in Wales to promote pro-active animal health planning to control sheep lameness**

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Lameness is a significant issue on UK farms with surveys suggesting that over 3% of ewes are lame at any one time; with footrot and contagious digital dermatitis as predominant causes of lameness. Footrot alone has been shown to cost individual farmers between an average of £3.60 per ewe on the farm with >10% lameness costing up to £6.351 or even as much as £142 per ewe in the flock per year.

Effective pro-active health planning hinges on developing relationships between vets and farmers. A key aim of the Hybu Cig Cymru / Meat Promotion Wales Red Meat Development Programme, Flock and Herd Health Planning Project (Stoc+) was to facilitate this process. Animal health priorities were co-identified by farmers with their Stoc+ vets at an initial health planning consultation that built on existing health plans. Across the whole Stoc+ project of 360 Welsh farmers, half of the farmers with sheep, identified with their vet, that sheep lameness was one of their top three priorities. To research this issue further, all Stoc+ farmers with sheep were invited to take part in an additional pilot project to address lameness in their flocks. Forty-three farms across Wales participated in this veterinary-led lameness project between August 2022 and March2023. It included online entry and exit surveys, interactive in-person and online farmer meetings, phone and text support for farmers to encourage the collection of flock lameness data. All farmers attended an initial on farm workshop at which they identified and discussed their current use of the ‘ Five Point Plan ‘ They were given training on lameness diagnosis and treatment and at each workshop were a number of engaged Stoc+ Vets. Bespoke veterinary lameness action plans were developed for each farmer based on the tried and tested ‘Five Point Plan’3 and incorporating recent research into lameness prevention and treatment.

Farmers assessed the level of lameness in their flocks at the start and end of the project. Using a T-test for two independent means, it was shown that lameness prevalence across flocks fell significantly over the course of the project: from 4.9% to 2.0% for ewes (t-value= 3.49;p<0.001), from 4.9% to 2.2% for lambs (t-value= 2.21; p<0.05) and from 15.6% to 6.1% for rams (t-value= 3.65;p<0.001) (figure 1). Farmer satisfaction as to their ability to identify and treat flock lameness increased over the course of the project (figure 2), with 97% of participants claiming the project had increased their understanding of how to control lameness (figure 3). There was a visible shift in farmer perception of their antibiotic usage (figure 4) with an increase in those stating that they were using little or an appropriate amount of antibiotics in their flock and a decrease in those stating they used more than they were comfortable with from 38% to 8% of farmers.

This project has demonstrated how focused veterinary engagement, with an emphasis on Plan-Prevent-Protect4 and the Five Point Plan can lead to significantly reduced levels of sheep lameness, increased levels of farmer confidence and reduced levels of antibiotic use. Targeted and appropriate use of antibiotics to treat sheep lameness formed part of the project dissemination. This project fed into the wider Sheep Antibiotic Guardian Group’s ‘Healthy Feet Happy Sheep’ 5 campaign. Dissemination of the outcomes included the provision of resources such as bilingual videos and online materials for vets and for farmers at Hybu Cig Cymru roadshows, in further education colleges and within veterinary practice Flock Health Club meetings.

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#### Figure 2. Farmer responses in feedback survey as to how satisfied they were with their ability to control lameness before joining and since partaking in the project.

Figure 3

#### Figure 1 Box and whisker plot to show the improvement in farmer-reported lameness prevalence in each category of sheep from the initial survey (Sept 22) to the feedback survey (March 23)



#### Figure 4, Direct comparison between farmer responses to the question asking how comfortable they were with the quantity of antibiotics that they use in their flock.

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