Taking a Targeted Approach to Worming Lambs

SRUC

How do we reduce anthelmintic resistance?

The Challenge

Resistance to worming medicines (anthelmintics) is increasing among Scottish sheep flocks. At present, 80% of lowland flocks and 55% of upland flocks show evidence of resistance.

To reverse this trend, it is important to try to maintain a susceptible parasite population in sheep flocks, which can be treated with medication.

The Research

The work is being carried out in collaboration with Moredun Research Institute at SRUC's Hill & Mountain Research Centre and uses Scottish Blackface and Lleyn lambs.

Effectively targeting anthelmintic use relies on the identification of those animals that will most benefit from treatment. This is achieved by assessing short-term weight change (difference in weight from one weighing to the next). The task is simplified with EID-based technology to identify individual animals.

Targeted worming of lambs is being trialled in hill farm conditions, on a flock of 900 ewes divided between two systems:

1) based on assessing individual lamb growth using EID;

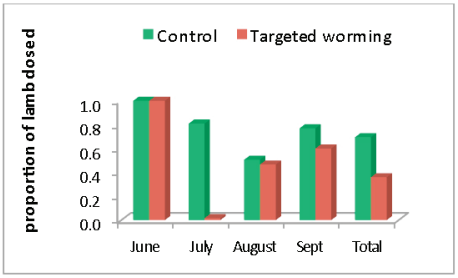
2) based on treating the whole flock if worm egg counts in faecal samples exceed 500 eggs/g.

Lambs undergoing targeted worming are weighed monthly. They are only wormed if they do not reach their individual target weight, which is calculated based on expected growth rates and grass availability.

The Results

Taking a targeted approach to worming lambs, based on individual lamb weight change, as recorded by EID, can be successfully implemented on a hill farm.

So far, such an approach has led to 52% savings in wormer costs and provides up to 75% of labour savings without compromising lamb growth. Lamb performance, economic and labour data are being collected over 3 years.



Success through Knowledge Knowledge Transfer and Exchange Programme (supported by the Scottish Funding Council, SFC).

The Impact

Wormer resistance could lead to heavy worm burdens in sheep with significant consequences for welfare and performance.

As detailed above a more targeted approach to worming lambs reduces unnecessary treatment and consequent risk of resistance.

It even holds short-term savings through reduced wormer cost.

Project Detail

Project start date: 04/2011, finish date: 04/ 2016.

Email: claire.morgan-davies@sruc.ac.uk This work is being carried out by the research team at the Hill & Mountain Research Centre, Scotland's Rural College, Kirkton Farm, Crianlarich, W.Perthshire, in collaboration with Drs F. Kenyon, D. McBean, K. Ballingall & T. McNeilly at the Moredun Research Institute (Penicuik).

SRUC receives financial support from the Scottish Government's Rural and Environment Science and Analytical Services Division (RESAS), Programme 2: Land Use.

For further info: http://www.sruc.ac.uk/info/120252/hill_and_mountain_research_centre

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Further Information

For more information on sheep health, contact your local vet. For wider management information on sheep production contact SAC Consulting beef and sheep specialist at **beefandsheep@sac.co.uk**