

Precision Farming Technologies

LIVESTOCK PRODUCTION AND DISEASE CONTROL

LEADING IDEAS FOR PLANT AND ANIMAL HEALTH



THIS RESPONSIVE OPPORTUNITY FUND INITIATIVE
DRAWS EXPERTISE FROM:

MOREDUN RESEARCH INSTITUTE
SCOTLAND'S RURAL COLLEGE
SPEYSIDE VETERINARY CENTRE
CROWN ESTATE SCOTLAND

SEFARI stands for Scottish Environment, Food and Agriculture Research Institutes – it is the collective of Moredun Research Institute; Scotland's Rural College; The James Hutton Institute; Royal Botanic Garden Edinburgh; The Rowett Institute, Biomathematics and Statistics Scotland. These Institutes work together to deliver unique and globally distinctive multi and inter-disciplinary research.

This collective delivers the Scottish Government funded 2016-2021 Strategic Research Programme on agriculture, environment, food and land. **SEFARI** improves the flow of research findings and expertise between the Programme and policy, commercial and public users. **SEFARI** works alongside the Scottish Centres of Expertise on climate, water and animal disease.

This briefing focuses on one of our short-term Responsive Opportunity Projects called 'Promoting the use of precision farming technologies (PFT) and diagnostics to drive production efficiency in Scottish sheep flocks.'



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The Responsive Opportunity initiative is a new capability to the Strategic Research Programme (SRP) within its central knowledge exchange strategy. It is designed to increase the visibility of the invaluable contributions the SRP makes towards sustainable economic growth and improving the lives of people in Scotland and beyond, through new and collaborative knowledge exchange ideas.

Parasitic gastroenteritis is arguably the most important disease affecting productivity in lambs, costing UK sheep producers £84 million per annum. Resistance to commonly used drugs to treat infections is an increasing problem to the industry, with ineffective drug treatments leading to production losses (~10% of lamb value at slaughter).

Currently, sheep farmers across Scotland generally do not use available diagnostic tools to maximise productivity and promote sustainable use of anthelmintics.

One perceived barrier to the uptake of these strategies is a lack of awareness among producers of the cost benefits associated with precision farming technologies (PFT) that can be realised through the use of diagnostics and electronic identification (EID).

In this Responsive Opportunity project interactive worm control workshops were developed for Scottish sheep farmers. Participating farmers accepted that the use of worm egg counts and EID enabled them to be proactive in their decision-making; but it was clear the livestock industry needs to consolidate information, disseminate and distil messages in a user-friendly format, and control strategies need to be tailored for individual farms to ensure best practice.

