

# Moredun



ISSUE 30 | AUTUMN/WINTER 2025

magazine



Buyer beware. Biosecurity Matters

Expanding our research with purchase of Firth Mains farm

Moredun wins NSA trade stand award

[www.moredun.org.uk](http://www.moredun.org.uk)

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# Director's comment



## Welcome to the latest issue of the Moredun magazine.

We're delighted to share news of Moredun's purchase of Firth Mains Farm, an exciting development that will strengthen our research and innovation in livestock health and sustainable farming.

This issue also brings change within the Group. We warmly welcome several new colleagues, including some returning staff, and bid a fond farewell to several long-serving members whose combined service equals almost 300 years! Their commitment and expertise have shaped Moredun's success, and we thank them sincerely.

Research and collaboration remain at Moredun's core, with updates on sustainable

parasite control and on the importance of biosecurity and quarantine, particularly through livestock movements. Our second 3Rs day was another great success, highlighting our continued commitment to responsible research and animal welfare.

We also hear from a work experience student inspired by the Easter Bush Campus as a global centre for veterinary science, alongside updates on Equine Grass Sickness and the essential role of flies and insects in farm biodiversity.

Together, these stories reflect our shared mission of advancing animal health and sustainability through science and collaboration.

We're immensely proud to announce that the Moredun Foundation's Honorary President, Dr. John Cameron, received the Lifetime Achievement Award at the 2025 Scottish Agriculture Awards. This recognition honours his exceptional contributions to Scottish agriculture, including his tenure as NFU Scotland President from 1979 to 1984 and his lifelong dedication to empowering the next generation of farmers through the Cameron Trust.

**Prof Tom McNeilly**  
Scientific Director and Chief Executive

## Moredun Magazine

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**Cover image:**  
*A handsome black Highland cow says "Hello!"*

# Moredun Firth Mains Purchase

**Firth Mains Farm, located just a short distance from our main site at Pentlands Science Park, has played a pivotal role in our research for many years. Previously leased from the Scottish Government, the farm has been mainly used for long-term parasite (gastrointestinal worms) studies. Now, as new owners, Moredun is in an even stronger position to invest in its long-term potential.**

The purchase of Firth Mains reflects Moredun's commitment to building a robust research infrastructure that not only delivers quality science but also ensures that practical benefits reach farmers and the wider rural community. Set up to reflect the practices of a working livestock farm, Firth Mains provides an invaluable "living laboratory" where scientific discoveries can be tested and translated directly into real life farming systems. This will also allow us to integrate Firth Mains into a network of such farms in Scotland and beyond to add the value of scale to the science that we do.

Looking to the future, Moredun plans to develop Firth Mains as a deep demonstrator farm. This concept goes beyond traditional research trials with the farm serving as a showcase for integrated approaches to livestock health, productivity and sustainability,



*The farm will be used as a demonstration hub.*



*Scientific innovation can be tested.*

demonstrating how scientific innovations can be applied to address the complex challenges facing agriculture today. From disease prevention strategies and sustainable grazing management to cutting-edge diagnostic technologies, Firth Mains will act as both a demonstration hub and test site.

Importantly, the farm will also provide new opportunities for collaboration. Moredun works closely with farmers, vets, industry partners and policymakers, and the purchase of Firth Mains creates a unique platform to bring these stakeholders together. By hosting on-farm events, open days and training workshops, and working closely with our Environmentally Sustainable Farming steering group, we aim to share knowledge, exchange ideas and to accelerate the uptake of best practice across the livestock sector. With our research being conducted on a fully operational farm, Moredun can generate the evidence needed to support resilient and sustainable farming systems that protect animal and human health.



*The farm has been used for long-term parasite studies.*

# News

## Moredun welcomes Dr Anita Jaglarz as new Head of Aquaculture Research Group

**Anita began her career at Moredun in 2006, initially working as a research scientist in the bacteriology department then as a postdoctoral researcher in the formed Aquaculture Research Group (ARG). During her 11 years at Moredun, Anita contributed significantly to research on aquaculture health and fish vaccines.**

In 2018, Anita left Moredun to pursue new challenges abroad, spending six years in Singapore leading aquaculture vaccine development projects. There she led complex R&D initiatives, built strong partnerships, and gained invaluable experience as a team leader.

Now she brings that wealth of expertise back to Moredun. As Head of the ARG, Anita leads a talented team working on a range of projects, from sea lice vaccines to large



collaborative initiatives developing new technologies for early disease detection and prevention.

She is looking forward to building on the group's strengths, fostering collaboration, and driving impactful research that benefits both the aquaculture industry and the environment.

## Rosie Stewart appointed Finance Director and Company Secretary at the Moredun Group



**Rosie joined Moredun in May and is responsible for overseeing all financial activities across the Group. She is also a member of Moredun's Senior Management Group, contributing to the strategic leadership and direction of the organisation.**

Rosie brings with her a wealth of experience in finance and the charitable sector, combined with a strong background in science and agriculture.

Raised on a sheep farm near Kelso in the Scottish Borders, Rosie has a good understanding of rural communities and livestock farming. She studied at Durham University, graduating with First Class Honours in Molecular Biology and Biochemistry. During her degree, she also spent a year as a Research Assistant at AstraZeneca, gaining valuable insight into the life sciences sector.

Following her studies, Rosie trained as a Chartered Accountant before moving into senior finance roles within the charitable sector.

Her appointment marks a return to the agricultural sector and to an organisation with which she has a long-standing connection.

## Dr Valentina Busin returns to Moredun as Head of Virus Surveillance Unit

**Moredun is delighted to welcome back Dr Valentina Busin as the new Head of the Virus Surveillance Unit (VSU).**

A farm animal veterinarian specialising in small ruminant health, Valentina graduated from the University of Turin in 2007 and moved to Scotland, where she developed a passion for sheep and goat medicine. After earning her European Diploma in Small Ruminant Health

Management, she completed a PhD with Moredun and Heriot-Watt University on point-of-care diagnostics.

Her career has since taken her from clinical disease investigation at the University of Glasgow to international work with the UN's Food and Agriculture Organization, where she supports countries tackling transboundary animal diseases, a role she continues alongside her Moredun post.

Now back at Moredun, Valentina looks forward to leading the VSU's research and



diagnostics, strengthening collaborations, and supporting Scotland's livestock industry through excellence in surveillance and animal health.

# 3Rs – here we go again!



*The event was attended by delegates from various backgrounds.*

**Following the success of Moredun's 3Rs half-day in 2024 we held our second event in September 2025 prior to the Large Animal Research Network meeting. Both were very well attended and feedback was very positive.**

This year we had presentations from Thomas Tzelos (3Rs Committee Joint Chair) and Chris Barkus (Programme Manager – Training and Engagement) from the NC3Rs on experimental design, power calculations and the ARRIVE guidelines (Reduction), Emma Baxter from SRUC on the use of models and simulations to improve pig welfare (Refinement), Miriam Garner on the development and use of organoids in research (Reduction), and Barry Anderson shared how he produced his own version of a commercial enrichment toy aimed at sheep (Refinement).

The Institute has a long-standing commitment to the 3Rs. As early as the 1970s, staff were applying the 3Rs principles well before they became widely recognised as an ethical framework for minimising harm to animals in research, teaching, and testing. For example, one scientist introduced a “taming and training” programme for the sheep and goats involved in their studies. Since then, many additional 3Rs strategies have been developed, and Moredun remains dedicated to implementing them, improving existing approaches, and developing new ones wherever possible.



*3Rs event networking.*



*Models for training were available for attendees to try.*

# News

## Bidding a fond farewell to over 280 years of service at Moredun

This year, we were sad to say farewell to several staff members as they entered retirement. Together, they contributed more than 280 years of knowledge and expertise to Moredun.

Throughout their time here, they worked in a wide variety of roles across the organisation from finance and administration to research and surveillance. They will all be greatly

missed and we would like to extend our heartfelt thanks for their dedication and many years of service.



## Fundraising in Memory of Moredun Colleague

**Two Moredun staff members, Alison Morrison and Margaret Oliver, together with Fiona Buchanan, Head of Agricultural Holdings and Women in Agriculture at the Scottish Government, took on the challenge of climbing Ben Nevis on 11 August in memory of their dear friend and colleague, Heather McDougall.**

Alison and Margaret worked closely with Heather during her time as a PhD student and post-doctoral scientist in Moredun's Parasitology Department. Heather, who came from a farming background, sadly passed away in December 2023 at just 38 years old, following a battle with Shone's Syndrome. She is survived by her husband and two daughters.

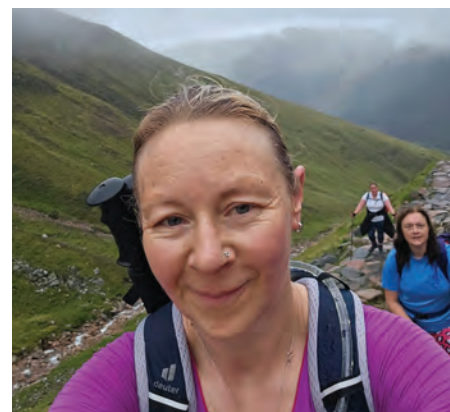
To honour Heather's memory the trio, accompanied by faithful Jack Russell Ziggy, set out with a fundraising target of £1,500.

Braving the elements, they successfully beat their target, raising funds for two causes close to Heather's heart. The cardiac ward at the Golden Jubilee Hospital in Glasgow, where she received treatment, and Thornton Rose Riding for the Disabled in Rosewell, Midlothian.

Speaking on behalf of the group, Alison said:

*"Heather was a much-loved friend and colleague, and this fundraising idea was first discussed at her funeral. We felt that climbing Ben Nevis was a fitting challenge to honour her memory while supporting two incredible organisations. It was especially meaningful that our climb took place in the same month Heather would have celebrated her 40th birthday."*

The team expressed heartfelt thanks to everyone who donated, delighted to announce that their efforts raised an impressive £3,287.91 (including Gift Aid) in support of these worthy causes. A lasting tribute to honour Heather's life.



*The trio on the ascent.*



*At the summit. L-R Ziggy, Margaret, Fiona and Alison.*

## A novel route to commercialisation for a critical vaccine against louping ill

**Many upland sheep farmers across the UK have been hard hit by the tick-borne louping ill virus (LIV) which has been spreading to new areas since the previous vaccine was withdrawn from market in 2017. In the absence of a vaccine against LIV, reported cases in sheep and red grouse have increased, as well as the disease being diagnosed more frequently in cattle, horses and dogs, which are known to be less susceptible to the virus. Disease in these animals is likely due to increasing viral loading on upland areas as sheep remain unvaccinated. As Louping Ill (LI) has occasionally been reported in humans, we may also be at increasing risk.**

Many farmers, in response to increasing losses in sheep due to LI, have turned to

increasingly frequent applications of acaricidal treatments, including pour-ons and dipping, as the only tools available to control LI. These treatments remain effective, but our use of them is becoming increasingly unsustainable.

A vaccine against LI would reduce the pressure on these treatments and give sheep farmers an important tool in the fight against this tick-borne disease.

Moredun has developed a vaccine which has proved to be highly effective against LI in research trials. However, as LI is primarily a UK disease of upland areas, the market was deemed too small for pharmaceutical companies to invest in developing this vaccine for commercial use. As Moredun, working with sheep farmers and gamekeepers, understands the importance of this vaccine to our upland sheep farmers and in response has undertaken to develop the first commercial vaccine for sheep through fundraising!

At time of going to press, the fundometer



*Scan here to donate.*

is showing that we have £350,172.56 donated including £100K donated by the Scottish Government in support of the Scottish upland sheep industry.

We are very keen for everyone to get involved, so if you are interested in helping raise awareness or running a funding campaign, please do contact me on [beth.wells@moredun.ac.uk](mailto:beth.wells@moredun.ac.uk)

# Research

## Buying cattle, or buying anthelmintic resistant worms? Biosecurity matters

Over 19 million cattle are moved between farms in the UK every year and two thirds of them could be carrying harmful roundworms, including some which are resistant to wormers (anthelmintics). In this article we discuss the findings of our study and how this highlights the importance of quarantine treatments for newly purchased cattle.

### Quarantine treatment of ALL newly purchased stock is important

Auction markets act as an important hub for cattle movement and provide an ideal opportunity to look at the health of cattle being traded. In collaboration with several markets, faecal samples were collected from nearly 400 pens of cattle (bulls, heifers and calves) being sold in auction marts throughout Great Britain. Between September 2019 and May 2022 faecal samples were collected from the floor of lairage pens and transported to the lab for analysis, to give a snapshot of the roundworm status of the cattle.

Faecal egg counts were generally low, with on average 18 roundworm eggs per gram (epg) of faeces but some animals with a higher level of infection were shedding almost 750 epg. Given the volume of faeces produced by cattle each day, this can equate to around 450,000 roundworm eggs being shed daily for low shedders increasing to nearly two million eggs for higher shedders!

Young calves had slightly higher egg counts than older animals, but there was no significant difference in infection rate between fattening stock (1-2 years) and adult cattle. This shows that the risk of bringing in roundworms (and potential wormer resistance) with bought-in stock is similar across all classes and ages of cattle, so quarantine treatment of ALL newly purchased stock is important.

Two thirds of cattle in our study were found to be infected with roundworms with most infected with the harmful roundworm



*Always quarantine new arrivals regardless of age.*

*Ostertagia* (97%). This worm, also known as the brown stomach worm, can cause watery diarrhoea and loss of appetite, leading to reduced weight gain and lower milk production in infected cattle.

### A quarter of herds carry resistant worms

We also investigated potential resistance to wormer treatments. This is a pressing concern

in the sheep sector and has more recently been reported in cattle roundworms too. Resistance to clear wormers (the macrocyclic lactones (3-ML)) was found to be relatively common in a recent Irish study, raising questions about their suitability for quarantine use in the UK. To assess alternatives, we examined white wormers (benzimidazoles (1-BZ)) and found some resistance in around a quarter of herds, mainly against less common

roundworms such as *Trichostrongylus* (the black scour worm). However, BZ treatments still appeared effective against the key cattle roundworm, *Ostertagia*.

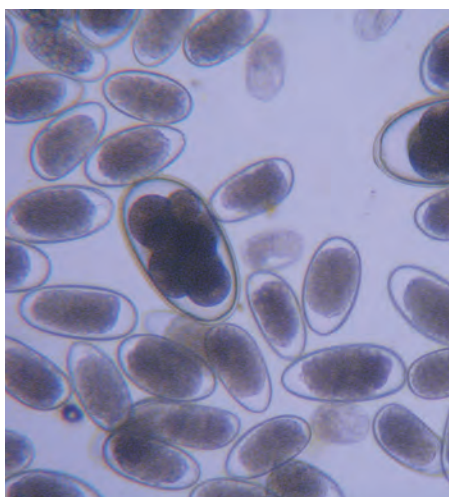
### There is no one-size-fits-all approach to cattle biosecurity

In early 2025, we held focus groups with beef and dairy farmers in Scotland (Northeast and Borders) and the Welsh Marches to explore buying practices and management of incoming cattle. Approaches varied widely, for example, buying large batches from known suppliers versus buying small groups from multiple sources or even individual on-movements of breeding bulls; buying off-grass in autumn or out of sheds in spring. Differences in staffing, facilities, and grazing/housing also shaped quarantine practices. While farmers were aware of the health risks of bought-in stock, roundworms were often a lower priority than diseases like BVD or Johne's. Farmers sought clear, practical advice, but as Dr Lynsey Melville noted, *"recommending a single protocol is difficult given the individuality and diversity of farms and systems."*

### Monitoring resistance

It is vital to monitor how effective wormer treatments in cattle are using post-treatment egg counts. Test 10–14 days after white (1-BZ) or clear (3-ML) wormers, and 5–7 days after yellow (LV) wormers. This is especially important for bought-in cattle. Building this step into routine worming helps protect herds against anthelmintic resistance.

**For further information about this topic, please see:** *COWS - Promoting Sustainable Control of Cattle Parasites*.



Roundworm eggs from faeces as seen through a microscope.



Cattle at market.

# Out and About

From showground to science festival, Moredun staff have been busy taking their expertise out into the field to connect with farmers, industry partners and the public.

## Award-Winning Engagement



Trade stand award at SheepNI.

At the NSA Sheep Northern Ireland event, Moredun's stand earned the coveted trade stand award as well as drawing large crowds for Philip's packed talk on sustainable parasite control. Rain didn't dampen spirits at NSA North Sheep, where Moredun joined forces with SCOPS and AHDB to deliver seminars on topics such as live faecal egg counts (FEC), liver fluke management, and updates on Barber's Pole worm. In the Highlands, NSA Highland Sheep attendees heard from Moredun experts on Louping Ill and the new vaccine in development, as well as strategies for controlling roundworms, sheep scab and ovine pulmonary adenocarcinoma (OPA).

At the Monitor Farms Scotland event in Ayrshire farmers tested samples from their own flocks and learned how to interpret results using the FEC Check app, alongside conversations about other pressing livestock health issues.

## Major Announcements at the Royal Highland Show

As usual the Moredun marquee was a hive of activity. Our scientists hosted several meetings throughout the show as well as offering fun attractions like our fixed parasite collection, vaccine making sessions and sheep themed crafts for children at the weekend.

The highlight of the show came during the Moredun Foundation reception when the Cabinet Secretary for Rural Affairs, Land Reform and Islands, Mairi Gougeon, announced Scottish Government match-funding of up to £100,000 to support the creation of a new Louping Ill vaccine.

Currently, no licensed vaccine is available for Louping Ill, and in naïve flocks, the disease can cause devastating losses. Moredun is crowdfunding to support the commercialisation of its newly developed vaccine. The Scottish Government's match-funding offer, available until the end of December 2025, presents a unique chance to amplify industry support. Moredun is encouraging farmers and stakeholders to make the most of this opportunity and help bring this vital vaccine to market.



Ian Murray Sec of State visit to RHS 2025.



Royal Highland Show wine reception at RHS 2025.

## Science for All

Moredun's outreach activities extended beyond agricultural shows. At Open Farm Sunday, Moredun brought science to life for all ages with our vaccine making activity, proving that complex science can be engaging, fun and accessible.

Through these diverse activities, Moredun continues to bridge the gap between cutting-edge research and practical on-farm solutions in engaging easy to understand formats.



Open Farm Sunday.

# Easter Bush as a Global Centre of Excellence

**Heather Simmons from Peebles High School spent a couple of days with the communications team for some work experience earlier this year. Heather is a budding journalist, and her dream is to become a sports journalist, specifically F1!**

We don't have the speed and glamour of an F1 racetrack, but Heather had the opportunity to speak to some of our scientists about their work and put together an article for our magazine.

## Collaboration at Moredun

Recently there have been multiple joint investigations happening between Moredun, the Royal (Dick) School of Veterinary Studies, and the Roslin Institute. This has been to promote the Easter Bush Campus as a global centre of excellence in veterinary research.

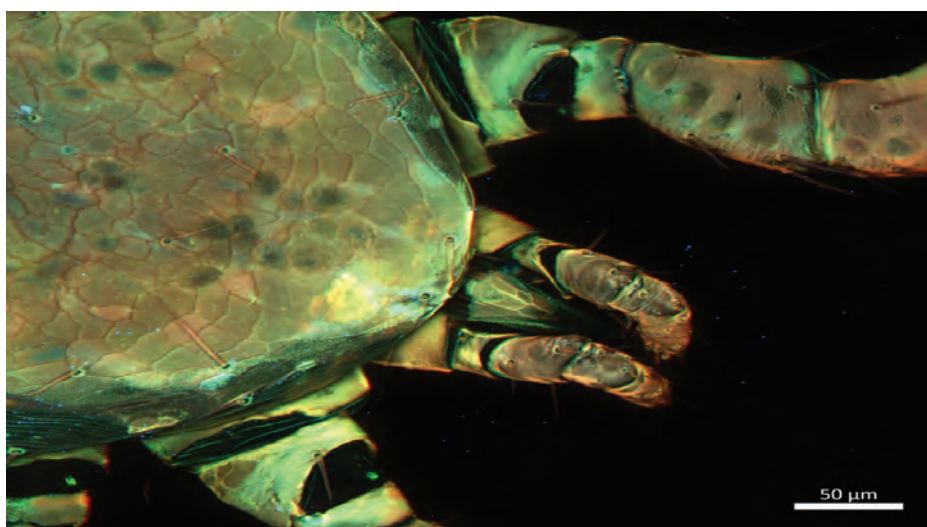
## Failure of passive transfer in lowland lamb production

Failure of passive transfer is when a mammal is born, and their mother doesn't produce enough colostrum (protein rich milk). The colostrum is required by the baby, which in this case is a lamb, because it has antibodies in it which help the lamb resist disease. This is necessary to a lamb's survival as they are born without an immune system, so they rely on it.

This research was conducted by Adam Hayward (Moredun), Rob Kelly (Royal (Dick) School of Veterinary Studies), Fiona Kenyon (Moredun), and an Erasmus student. They were aiming to find out how much colostrum a lamb needs to survive, rather than just whether they get it or not. They were also looking at long term effects such as resistance to parasites and growth rates.



Colostrum is essential for lamb survival.



Healthy adult female Poultry red mite, *Dermanyssus gallinae*. Stained using Hoescht and Phalloidin. Image taken on the Moredun Zeiss Microscope.

Photo © Naorri Derty, Marc Faber and Alexander Dindial

## Speaking to Adam

I was lucky enough to get to talk to Adam Hayward recently, on his experiences of the collaborative project. He expressed the fact he enjoyed partnership, saying:

*"It's good to collaborate...it was nice to have someone that you already knew and got on with to do a project with. We also brought different skills"*

He also said should the opportunity arise; he would like to do a collaborative investigation again. He says *"We have actually put in another grant application to do it better basically. The whole idea of this was just a little starter project to see how we all work together and to see whether we could get anything out of it. The next step is another project with a slightly better design before we potentially move to a bigger one which would involve commercial farms rather than just our farms. We are working together on a few other different things as well, so it's nice"*.

## Poultry red mite and RNAi gene silencing

Poultry red mite is an ectoparasite (a parasite that lives on the outside of an animal) that feeds on the blood of birds. This is a problem for the birds as it can cause significant blood loss, as well as skin irritation. The current way to get rid of the mites is by using chemicals that kill them; however resistance is being built up which means a new solution is required. This is what Dan Price (Moredun), and Professor Mike McGrew (Roslin Institute) have been researching.

The technique they've been looking at is called RNA interference (RNAi), and that is when scientists genetically engineer a bird to have double stranded RNA which will silence the gene in the mite, killing it if it feeds on the bird.

## The collaboration

The collaborative side of this project seemed to work well, as Professor Mike McGrew has had a lot of experience making transgenic birds, and Dan Price does a lot of work with red mite, so they brought different skill sets and knowledge. Dan said he *"would definitely do it (a similar project / collaboration) again"*. He suggests that if he were to do it again, he would like to look at a similar topic, and that he chose it both out of interest and the need for a new intervention. Genetically modified birds are not legalised in Scotland at the moment, but there may be legislation change in the near future to help protect poultry.

# Research

## Promoting sustainable worm control in grazing ruminants: the SPARC project in action



*A Sandomierska goat - a native Polish breed.*

**Roundworm infections are a serious welfare concern for livestock farmers and can cause significant production losses. Younger animals are particularly affected. The cost of infection with parasitic worms to the livestock sector is estimated to be more than €1.8 billion a year in Europe, with 80% of this due to production losses and 20% due to treatment costs.**

Control of parasitic infections relies heavily on anthelmintics (wormers). The rise in treatment failure (anthelmintic resistance), where worms can survive exposure to a correctly administered treatment, is a key challenge for roundworm control.

Although anthelmintic resistance poses a major challenge, its impact can be reduced through sustainable parasite control strategies such as targeted treatments, selective breeding and grazing/pasture management. Moredun researchers Drs Dave Bartley and Agata Delnicka are contributing to this effort through the EU Thematic Network SPARC - Sustainable Parasite Control in Grazing Ruminants - by investigating a range of strategies.

The SPARC project seeks to build a community interested in sustainable worm control in the livestock sector. The project



*Group discussions around parasite control in grazing ruminants.*

brings together researchers, veterinarians, farmers and other relevant stakeholders from over 10 countries from across Europe to promote best practices, develop tools and solutions to improve the health and welfare of animals, increase productivity and resilience of ruminant livestock farming in a sustainable way.

A key focus of this multifaceted project is communication and dissemination of best practices and tools. This summer, Dave, Agata and Kevin Harrison - sheep farmer, SCOPS Chair, and the UK's ambassador of the SPARC project - travelled to Poland to meet with the other project partners to discuss progress. The team also visited local sheep and goat farms to learn about their enterprises and discuss their specific parasite control challenges. Next year, the UK team will host researchers and ambassadors from the Netherlands and France to promote knowledge exchange and collaboration on sustainable worm control.

A key objective of the SPARC project is to validate and demonstrate effective roundworm

control practices in various settings. This year, Moredun researchers have been demonstrating the utility of two different approaches to managing roundworm infections on UK sheep farms. Working with participating farmers, we have conducted faecal egg count (FEC) and faecal egg count reduction (FECRT) tests to monitor infections and assess treatment efficacy, alongside species composition analysis to identify the worms present.

In collaboration with Signet breeding services, Innovis, Techion, Farming Connect, AHDB, and all participating farmers, Dave and Agata have been investigating if, and how, selective breeding of sheep based on serum IgA (one of the elements of the animals' immune defences against worms) impacts worm species composition. Estimated Breeding Values (EBVs) are used to quantify an animal's genetic potential for specific traits by analysing pedigree and performance data. Higher IgA levels have been associated with lower worm egg counts, IgA EBVs can help identify animals with greater resistance to gastrointestinal worms.

This work will advance our knowledge about breeding animals which are more resistant to worm infections, helping us to tackle the challenge of worm control.

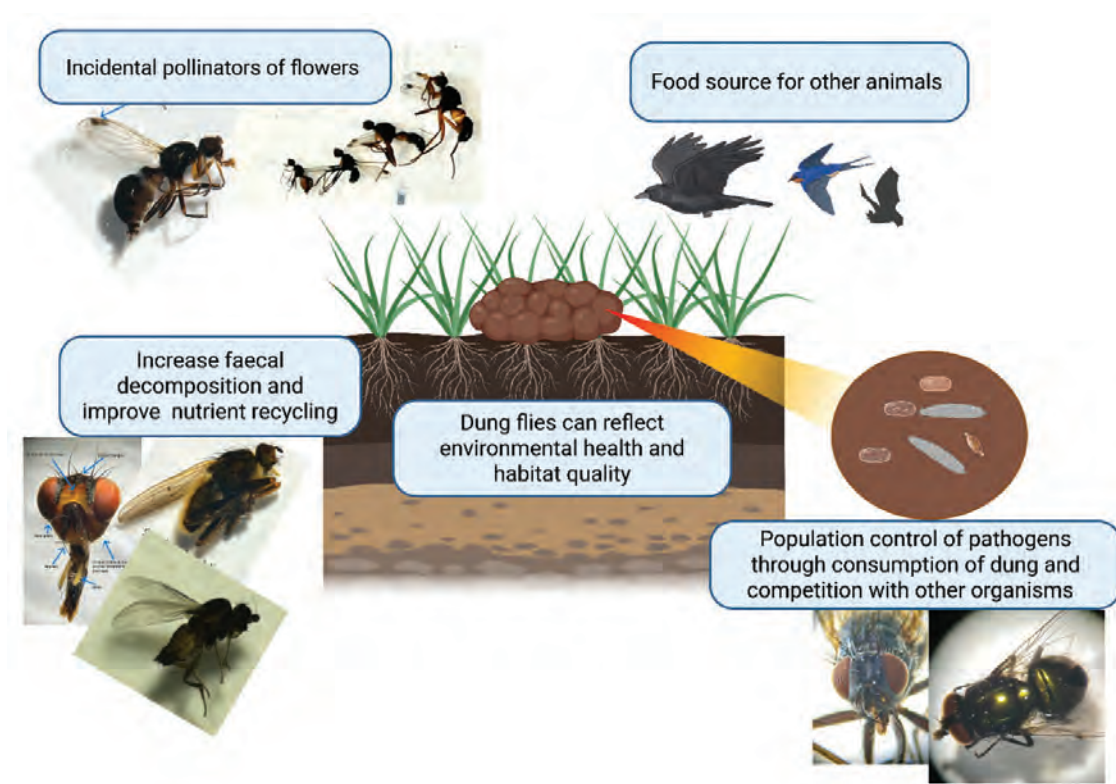


*L - R: Dave Bartley, Agata Delnicka and Kevin Harrison.*

*Further information about the project, and a wide range of resources, learning materials and practical tools on the topic of sustainable roundworm control can be found on the website*

**[www.wormsparc.com](http://www.wormsparc.com)**

# Dung flies – the unsung heroes of farming



Representation of beneficial roles of UK dung flies (created in [www.BioRender.com](http://www.BioRender.com)).

**Insects play a vital role in the environment, and while dung beetles receive most of the attention, dung flies are equally important. They act as pollinators, decompose organic matter, recycle nutrients, improve soil health, help control pests and provide a food source for many mammals and birds. Collectively, these roles are estimated to be worth millions of pounds to UK agriculture.**

Interest in regenerative farming and promoting biodiversity in agriculture has been gaining momentum with some stakeholders. However, many compounds used to treat or control pests and parasites can negatively affect invertebrates such as dung beetles, dung flies and aquatic fauna. This can occur when active ingredients or their metabolites are excreted in the manure and/or urine of treated animals, or when residues leach into the environment

due to poor storage, application or disposal.

To minimise any environmental risks, all animal medicines licensed for use in livestock undergo an Environmental Risk Assessment (ERA), reviewed by the Veterinary Medicines Directorate (VMD), the competent authority in the UK, before any license is granted the impact that anthelmintic residues in sheep faeces may have on fly populations. Pilot studies have been developed and undertaken to look at the attractance to, and emergence of, flies from faeces from sheep that had been treated with different broad spectrum anthelmintics.

Preliminary data show that 21 different insect families were identified in the attractancy traps which include parasitic wasps, other predatory flies, nine fly families associated with dung and five fly families more associated with vegetation and rotting matter. In the emergence traps 11 fly families have been identified most of which are associated with dung.

To minimise the potential impacts of animal health products on these populations it is essential that they are used responsibly, and waste products disposed of correctly. Sustainable parasite control should be directed by the use of appropriate diagnostic tests, clinical signs and/or forecasting information. Non-chemical strategies such as pasture and grazing management or optimised nutrition can also reduce the need for treatment.

Further reading/listening:

Website - <https://bit.ly/SCOPSEnvironmentalconsiderations>

<https://bit.ly/MoredunEnvironmentallySustainableFarming>

Moredun newsletter - <https://bit.ly/ELFnewsheet>

SCOPS podcast - <https://bit.ly/SCOPSpodcast>

# Spotlight

## Meet Moredun's newest recruits

### Agata Delnicka

Post-doctoral research scientist



#### What is your job role?

I am a postdoctoral research scientist working on project called SPARC – Sustainable PARasite Control in grazing ruminants. My role is to contribute to the project through assessing roundworm burdens and their species composition in sheep to promote sustainable roundworm control. This involves doing lots of faecal egg counts, carrying out molecular lab work and communicating these results to farmers. Additionally, I will also be investigating the motivations and challenges around uptake of sustainable parasite control approaches to find out how we can best support farmers and other stakeholders to achieve this.

#### What's something you've always wanted to try?

Bikepacking. I really like cycling and I love the idea of exploring beautiful places whilst not being tied down to a single location. The idea of camping and being a snack for the Scottish midges does put me off slightly but I'm sure the rest of the experience would make up for it.

### Holly Hill

VSU Scientist



#### What is your job role?

I've recently joined the Viral Surveillance Unit, where I work as part of a team providing specialist diagnostic and disease surveillance services for livestock and wildlife. As part of my role, I also develop tests, including point-of-care assays, to improve the detection of infectious diseases. I really enjoy the mix of diagnostics and research, and it's rewarding to know that the work we do can make a real difference to animal health and welfare through disease control.

#### When was the last time you tried something new?

I've recently taken up stained glass, which has been a really fun and surprisingly relaxing new hobby. It's a nice change of pace from lab work; there's something very satisfying about creating something so beautiful and colourful with your hands.

### Rhiannon Garvie

Administrator



#### What is your job role?

My role covers the Secretariat duties for the (Animal Welfare Ethical Review Body) AWERB Committee, as well administration support for Bioservices. It involves coordinating the various committee meetings, producing minutes of the meetings and chasing up action points so that everything is carried out in line with the SOPs and Home Office guidelines. With so much happening it would be easy to lose track – so it is my job to keep on top of that!

#### Last time I tried something new:

My mum has always been a whiz at the sewing machine. From curtains to wedding dresses – the sound of the machine was always there in my childhood. But the skill seemed to skip me! Recently I was gifted a sewing machine, and when my friend and I were asked to help decorate a very drab community hall for a Scottish theme lunch, I decided it was time to conquer my fear. Sixty meters of tartan bunting later I can say I have caught the sewing bug!

# Equine Grass Sickness Fund (EGSF)



Photo © Helen Mitchell

*Horse with chronic grass sickness.*

**It has been a busy year for the Equine Grass Sickness Fund (EGSF). The outgoing administrator Kate Thomson retired earlier in 2025 and was replaced by Charlotte Gilbert in June. The fund is hugely indebted to Kate for her 15 years' dedication to EGSF and the extraordinary amount of work she's done to raise its profile.**

For this year's Royal Highland Show (RHS), EGSF was based in the Moredun stand for the first time. This was a new idea for this year, however it was felt that despite the ring-side location, interactions with horse owners were less. A plan for future shows will be discussed with the EGSF committee. It should be said that the life-sized anatomical horse "gut feeling," who was front and centre at the stand did provide some ideal selfie opportunities and talking points with passers-by!

EGSF also attended the inaugural Scone Palace International Horse Trials, kindly hosted by the British Horse Society (BHS), Scotland. Valuable conversations were had with multiple owners and vets, as well as merchandise

sold. It was great to be able to participate in such a hugely successful inaugural event, and hopefully EGSF can attend again in the future.

## Research Update

The EGSF is delighted that research scientist, Tanith Harte, has had her contract extended for a further three years. Tanith's work on organoids has progressed well, and she has now cultured organoids of the entire equine gut. The organoids were grown up from healthy controls, and the next step is to culture organoids from EGS cases and compare them to the controls. RNA sequencing data derived from the healthy control organoids has also led to some fascinating results, which are due to be published.

EGSF continues to fund a collaborative PhD project between Moredun and the University of Surrey, involved in biomarker discovery for early diagnostics. Brenda Moita, PhD student, is making good progress optimising equine urine sample preparation for proteomics, having identified over 1,000 proteins from fresh samples which were compared with EGS controls.

During her MRes with Edinburgh

University, funded by EGSF and Royal Highland Agricultural Societies for Scotland, Dr Hayley Coulson developed a very useful EGS weather risk model, which has been tested using EGS case reports in the UK, Italy and Chile. The model has successfully predicted cases and has now been integrated into a new weather risk map and alert system for horse owners and vets, in collaboration with JDATA and the Equine Infectious Disease Surveillance team at Cambridge University. This project was generously funded by the RS Macdonald Charitable Trust and we are very grateful for their support. The alert system that sends out the risk of EGS in a specific area, via WhatsApp, is now available for owners to sign up to. This is a huge step forward and will allow owners to make decisions on the care of their equines based on their localised EGS weather risk. Owners can sign up to the weather alert system here: <https://moredun.connectanimalhealth.com/apps/egssubscribe/>

Overall, things at EGSF HQ are running smoothly and we look forward to seeing what the future brings!



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