

# The Spark

## SEFARI Gateway's Newsletter

July 2024



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Welcome to the July 2024 edition of The Spark, [SEFARI Gateway's](#) (Centre of Expertise for Knowledge Exchange & Innovation) newsletter, a monthly update on the latest research from the [Scottish Government's Environment, Natural Resources and Agriculture \(ENRA\)](#) strategic research programme. The ENRA Research Portfolio provides evidence for policy and practice across environment, climate change, biodiversity, land use, agriculture, food, and rural community agendas

Scotland is playing a central role in developing environmental solutions to the global climate and nature crises, and the Scottish Government response is based on the strongest possible scientific evidence. The Environment, Natural Resources and Agriculture research programme is key to achieving this.



We'd love to hear from you and receive your feedback on how we can improve our newsletter. Please contact us at [info@sefari.scot](mailto:info@sefari.scot) with your suggestions.

## AKIS Fellowship is latest big step towards realising vision for future of agriculture

Sharing a wide variety of expertise and perspectives is crucial to achieving the Scottish Government's ambition for the country to become a global leader in sustainable and regenerative agriculture – and a big new step has been taken towards successfully pooling that knowledge.

With the passing on June 18 of Stage 3 of the Agriculture and Rural Communities (Scotland) Bill, the main delivery vehicle for the Vision for Agriculture, SEFARI Gateway is pressing ahead with the creation of the new Agricultural Knowledge and Innovation System (AKIS).

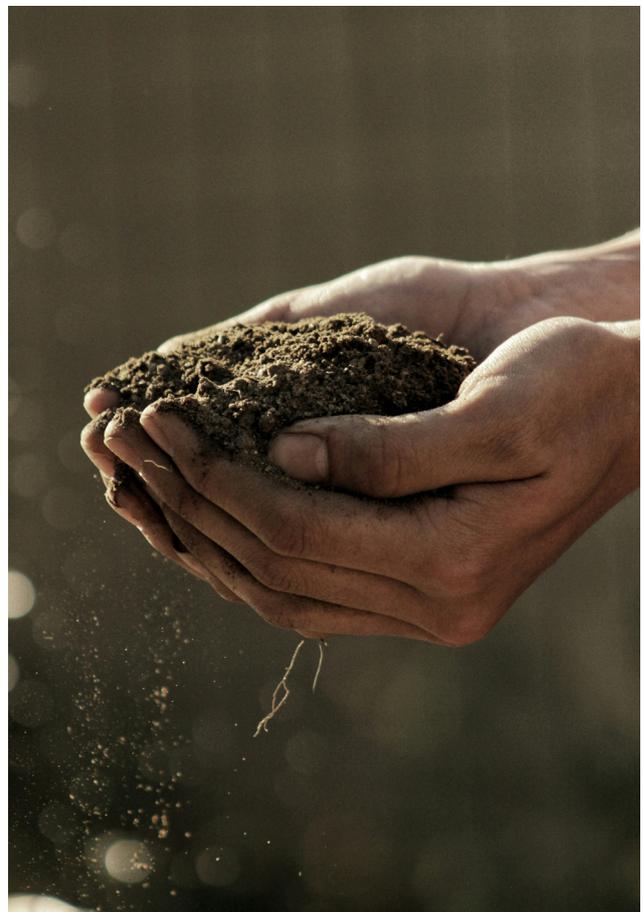
We are [commissioning a fellowship](#) with the government to answer several key questions that will help ensure it is the best of its kind.

These include:

- What can be learned from relevant developments of the AKIS in the EU CAP?
- What key current and emerging policies should be considered in the development of the Scottish AKIS?
- What range of policy options are best suited to implementing them in the Scottish context?

The fellowship will consider all participants in agricultural systems: supply chain actors, farmers, crofters, farm advisory services and advisors, land-based business organisations, and research and education providers - including research institutes, universities and colleges.

The fellowship's report will be completed towards the end of 2024.



## ENRA research showcased at the Royal Highland Show

With a record 220,000 visitors (more even than Taylor Swift's Murrayfield concerts!) the Royal Highland Show was a perfect opportunity for the SEFARI Institutions to showcase their ENRA research. As one of the few events that gathers the public, trade, the food industry, farmers and government in one place, it is a very effective channel for reaching stakeholders.

Among well-attended events celebrating the close collaborations between SEFARI institutions, business and government, was a reception at the Rowett Institute's marquee. It was held to highlight research with The Scotland Food & Drink Partnership Net Zero Programme to benchmark the sector's carbon emissions for the food and drink sector. The programme is hosted by Food and Drink Federation Scotland, whose chief executive David Thomson was among those who made speeches to the gathering of 50 key stakeholders. He was joined at the mic by Alice Biggins, Deputy Director for Food and Drink at the Scottish Government and Rowett Director Professor Jules Griffin, chair of the SEFARI Directors Executive Committee.



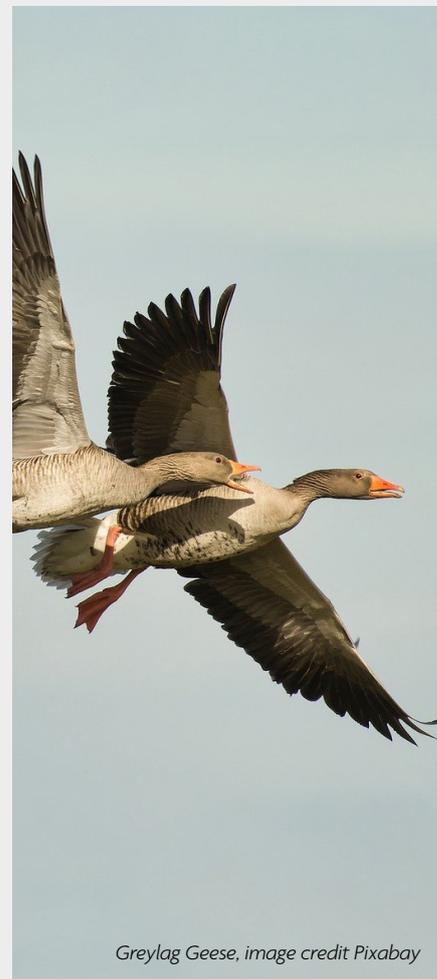
Speakers (left to right): Jules Griffin, Director of the Rowett Institute, David Thomson, CEO of Food & Drink Federation Scotland and Alice Biggins, Deputy Director of Food and Drink at the Scottish Government.



Pancake making at the Royal Highland Show demonstrating healthier, more sustainable crops in food reformulation.

## High-tech wild goose chase: using cutting-edge science to combat health risks

Populations of Greylag geese in Scotland have rapidly increased in size over the last 30 years and there is concern that the resultant high levels of faecal contamination of pasture risks both livestock and public health. ENRA scientists at the Moredun Research Institute **are working** with farmers and local stakeholders in Orkney to investigate these risks, which may have implications for farmers and communities across Scotland. This **One Health** project also focusses on the role of geese in the spread of bacteria that have developed resistance to antibiotics, a significant issue for global health. Scientists are developing non-invasive methods to genotype geese populations through faecal analysis and are trialling the use of new technologies for disease surveillance in wildlife, which may have application in wider conservation efforts.



Greylag Geese, image credit Pixabay

## Public advice needed over risk of meat-borne infection



Keeping Scotland's population safe from foodborne illness is an important thrust of ENRA's Strategic Research Programme. The potentially important role of retail meat, specifically venison, in foodborne transmission of a parasite has been revealed in [a recent study](#) by SEFARI scientists at the Moredun Research Institute. *Toxoplasma gondii* is a microscopic parasite shed by cats that has global impact on human and animal health due to its widespread dissemination in the environment. Most people infected with *T. gondii* will not have symptoms and may not even realise they are infected. The biggest health impact is on those with weakened immune systems or those infected from birth. For them, the infection can cause severe or life-threatening illness.

Consumption of undercooked meat from infected food-producing animals is known to be an important source of *T. gondii* infection for people. However, little has been known about the role of retail meat in transmission. We investigated the presence of *T. gondii* in different meat products from retail outlets in Scotland, and detected the parasite in chicken, lamb, pork, and venison. The highest incidence of *T. gondii* was detected in venison – a meat often consumed undercooked. Furthermore, we demonstrated the presence of viable parasites in venison capable of causing infection. Consumers should be encouraged to freeze meat or cook it thoroughly before consumption to reduce the risk of infection.

### A growing problem? Results of rapid review of bracken control in Scotland

The findings of a [rapid review](#) commissioned by the Scottish Government to examine the potential consequences of not controlling bracken growth on biodiversity, rural productivity, and public health in Scotland have been published. The study specifically focuses on the use of asulam, marketed as Asulox, as the primary herbicide for bracken control in rugged and steep terrains since the 1980s – which has only been used on the basis of annual emergency licensing.



Bracken, image credit Pixabay