SRUC

The Scottish Government's Veterinary Services Programme

Supporting Animal Health and Welfare in Scotland

2024/25

Scottish Government
Riaghaltas na h-Alba
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Programme Overview

The Scottish Government funded the Veterinary Advisory Services Programme to provide livestock disease surveillance, animal health planning and farm animal welfare support across Scotland during 2024/25. Animal disease surveillance is a statutory requirement and is provided by SRUC Veterinary Services through the collection and analysis of data from diagnostic samples and carcasses submitted to SRUC's Disease Surveillance Centres (DSCs) and through collection of intelligence from a wide network of contacts within Scotland and beyond. This programme monitors the current health and disease status of Scottish farmed livestock and enables changes in animal disease status to be detected quickly.

Veterinary practitioners and livestock farmers use this information to support the implementation of disease prevention measures across Scotland. Thus, a proactive approach to managing biosecurity, health and welfare in Scottish livestock is achieved; and all producers, irrespective of size of enterprise or geographical location, continue to have access to the relevant advice and information. Improving animal health and welfare increases the efficiency and resilience of Scotland's agricultural sector,A which is vital not only for financial success, but also in relation to the driveA to reduce greenhouse gas emissions.

The programme of development for outreach and knowledge exchange remains key to disseminating information gathered from the surveillance system to veterinary practitioners and livestock farmers. Currently the programme uses a blend of online and in person formats ensuring broad accessibility of the messages as well as gaining the benefits that in personA contact provides. The presence of SRUC Veterinary Surveillance Hubs throughout Scotland supports close contact with local practices and enhances the ability of the team to get important information out to those practices and their clients quickly and effectively. Surveillance information is also disseminated via multiple channels including websites and social media as well as scientific reports and newsletters.A

Farm Animal Disease Surveillance Output

This publication outlines some of the work that has been undertaken by SRUC Veterinary Services and some of the conditions that have been recognised in the past year.

When a diagnosis is made, or a condition encountered, SRUC Vets consider its importance for the entire country. This requires consideration of the following questions:

- Is this a new or unusual outbreak of disease?
- Als the disease notifiable?A
- Does the disease outbreak require further investigation?
- Is there a risk to public health or the food chain?

Disease and disease trends information compiled in Scotland is also provided for addition to that collected by the Animal and Plant Health Agency (APHA) laboratories and approved contractors in England & Wales to provide the full picture for Great Britain. This can be accessed through the disease surveillance dashboards at **http://apha.defra.gov.uk/vet-gateway/surveillance/scanning/disease-dashboards.htm**. Monthly reportsA on SRUC Veterinary Services surveillance activities are also available on the SRUC website: **https://www.sruc.ac.uk/business-services/veterinary-laboratory-services/scottish-government-veterinary-services-programme/.**

Surveillance and Effective Communication

The aim of animal health surveillance is not only to monitor disease trends but also to facilitate the control of animal disease. Gathered data forms the basis on which different stakeholders can assess the risks for their individual circumstances, be that related to animal or public health. The information generated may be used for wider health initiatives or simply knowledge exchange.

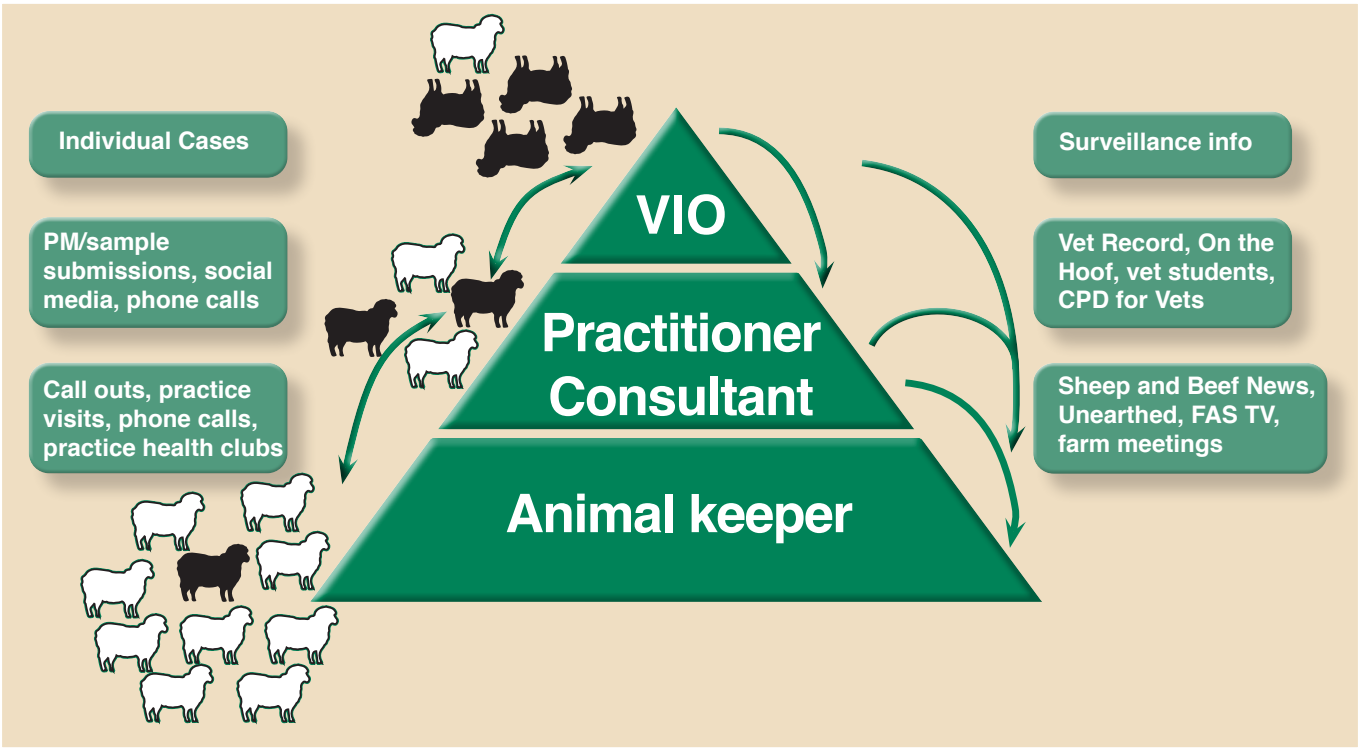
For both the collation of animal health data and distribution of surveillance information communication is essential. The scanning surveillance model in Great Britain relies on farmers communicating with their consulting vets and practitioners contacting SRUC Veterinary Services when they look for support dealing with animal diseases. Generic advice is typically only a few taps or mouse clicks away. Specific advice for individual situations, however, involves aA more detailed two-way conversation between the people involved. For this communication to be effective, mutual trust and shared understanding of local circumstances, such as the unique characteristics of an enterprise, are key.

Lines of communication related to animal health do not necessarily involve vets. Peer-to-peer discussions amongst farmers will go a long way to solve issues an individual farmer faces. Where weather conditions, feed availability or commodity prices affect farms at a wider scale, farm advisors will become aware at an early stage. SAC Consulting therefore also collects invaluable information essential for a meaningful surveillance system.

Information gleaned by the surveillance system concerning the national herd or flock is disseminated throughA different channels than when dealing with individual cases. SAC Consulting uses publications like “Unearthed” or “Sheep and Beef News” to inform farming clients. Surveillance findings of national importance are available in theA Vet record monthly reports and regional animal health updates are provided by short “On the Hoof” messages to subscribers.

Completed submission forms with detailed case history and supporting materials such as images and video clips help Veterinary Services provide optimal advice when interpreting lab results for an individual case. A quick call to SRUC Veterinary Services before a vet visit to a farm can support their decision making concerning which types of samples to take, laboratory tests to request, and how to interpret results.

This pyramid system of scanning surveillance is highly effective in identifying new and unusual conditions. To avoid a skewed reflection of animal health concerns, availability of unbiased information is essential. Evidence based insightA gained by our research colleagues underpins the expertise in the different disciplines. New findings may come fromA research trials or the analysis of industry data such as animal movements or production data collected at slaughter. Either way, the knowledge gained needs to be related back to practice which in turn relies on the same players and their working relationships, in which one-to-one conversations remain essential.



Animal keepers see large numbers of animals – both healthy and sick. If keepers perceive a health issue as highly relevant for their herd or flock, practicing and SRUC vets, as well as farm advisors and consultants, become aware ofA the health issue. Effective communication between the different stakeholders comes in different forms and builds onA long established, often personal relationships.A

Surveillance for Schmallenberg Virus

Cases of foetal malformations in cattle and sheep in Scotland due to Schmallenberg virus (SBV) have been diagnosed by SRUC Veterinary Services in late 2024 and spring 2025. SBV, which is spread by midges, was first identified in Europe in 2011 but only small numbers of diagnoses had been made in Scotland until now. Over winter-spring 2022-23, surveillance colleagues at APHA reported an increase of cases of malformations due to SBV in the east of England with cases in the west of England and Wales in 2023-24. In autumn 2024, SRUC Veterinary Services detected antibodies to Schmallenberg virus in blood samples from homebred animals across Scotland indicating widespread exposure to the virus. SRUC Veterinary Services therefore encouraged vets in practice to consider SBV as a possible cause when dealing with high barren rates, early embryonic loss or congenital malformations in cattle and sheep.

Since December 2024 until the end of March 2025 there have been 22 confirmed cases of malformations due toA SBV on Scottish holdings with diagnoses in 17 flocks and 5 herds. Diagnoses have been made in Argyll, Dumfries andA Galloway, Ayrshire, East Dunbartonshire, Lanarkshire, Falkirk, East Lothian, Stirlingshire, Perthshire, and the Borders although homebred animals from other areas of Scotland have also shown evidence of exposure to Schmallenberg virus on serology. It is known that there are many more suspect cases where full investigation has not been carried out, but the vets have been suspicious that SBV has been involved.

Lamb showing limb and spinal deformities due to in-utero Schmallenberg virus infectionA

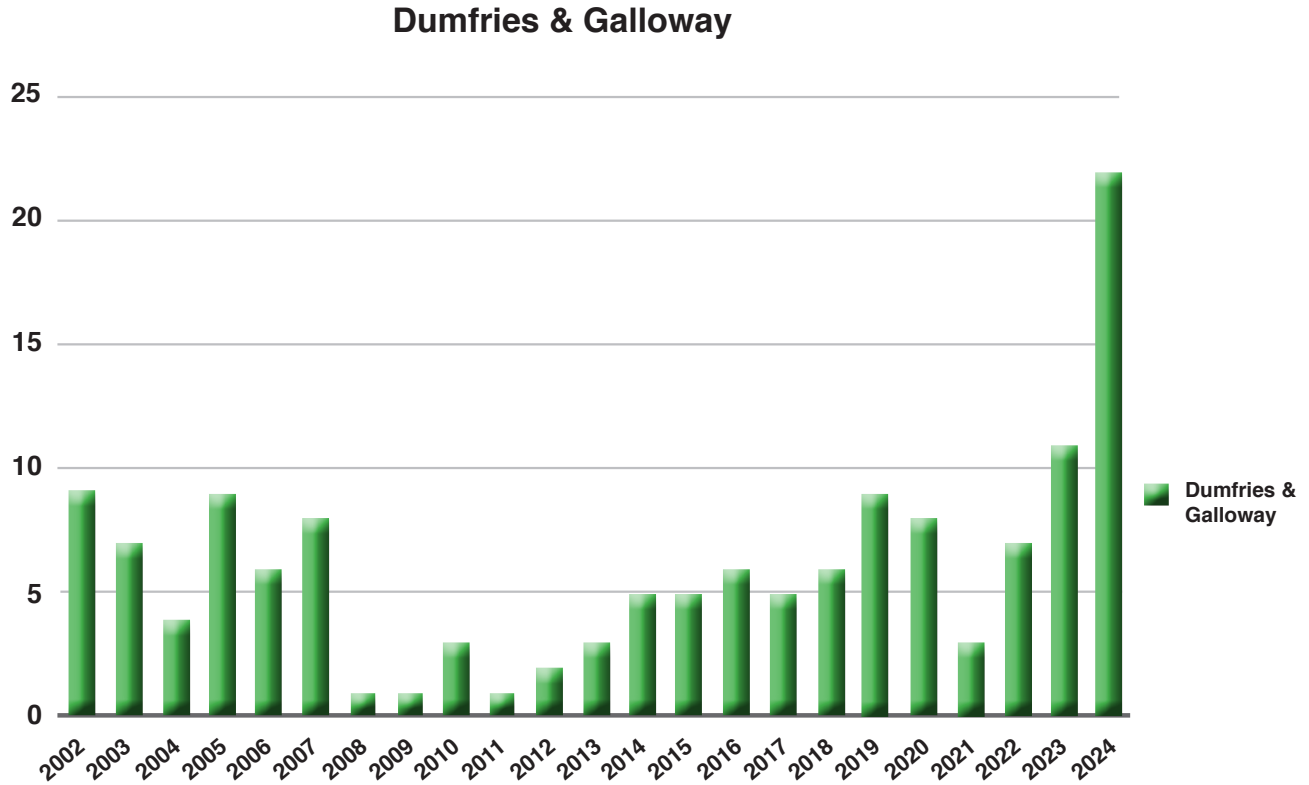
The malformations noted in confirmed cases have been theA same as those reported across Europe and in England & Wales in previous years: joints fixed in a bent position, twisted neckA or spine, brain and spinal cord deformities. Although there have been reports of flocks with a high proportion of affectedA lambs, fortunately in most of the confirmed cases this has notA been the case and only small numbers of animals have been affected.

SRUC Veterinary Services has continued to encourage submission of foetuses or samples for full investigation to ensure the right diagnosis is reached. Other viruses, genetic conditions or toxins could result in similar looking malformations. Full investigation will also help surveillance for bluetongue virus (BTV), which is also spread by midges, but is a notifiable disease. Cases of BTV have been confirmed inA England in 2024-25.

Respiratory Syncytial Virus (RSV) – A Changing Picture?

Bovine respiratory disease (BRD) is a major cause of production loss in both dairy and beef systems. It is caused by many different viruses and bacteria, as well as lungworm. In addition, risk factors such as poor ventilation or drainage in cattle housing can be significant contributors. As our diagnostic techniques for detecting the infectious agents associated with respiratory disease improve, we are increasingly aware that often more than one agent is involved. Commercial vaccinations are available against the common infectious agents involved with the BRD complex.

Respiratory Syncytial Virus (RSV) is the most commonly diagnosed viral cause of respiratory disease in cattle. In 2024 the number of diagnoses of BRD associated with RSV in Dumfries and Galloway in particular has increased. SRUC Veterinary Services is investigating these cases to try to understand why, and samples from these cases are being stored. Through collaboration with colleagues at the Animal and Plant Health Agency (APHA), planning is underway to perform sequencing of the RSV isolates. This will enable determination of whether the RSV strains detected differ from the strains identified in other parts of the UK, or from the strains included in routine vaccinations.A



Diagnoses of BRD associated with RSV in Dumfries and GallowayA

Antimicrobial Resistance MonitoringA in Healthy Livestock

The food chain from farm to fork is recognised as an important contributor to the global threat of antimicrobial resistance. Monitoring of antimicrobial resistance in the bacteria that inhabit the intestinal tract of healthy farm animals at slaughter provides a means to assess the potential risk posed generally to humans and animals.

During 2024, for the eighth successive year, SRUC Veterinary Services has tested enteric samples collected by Food Standards Scotland to monitor antimicrobial resistance in Escherichia coli isolated from cattle, sheep, pigs, and poultry sampled upon presentation at abattoirs in Scotland. One E. coli isolate per animal sampled was tested for antimicrobial sensitivity against 12 antibiotics that include compounds deemed critically important to human health (CIA) as categorised by the European Medicines Agency: **https://www.ema.europa.eu/en/documents/report/categorisation-antibiotics-european-union-answer-request-european-commission-updating-scientific_en.pdf**

Levels of non-sensitivity to the antibiotics tested remained generally low for cattle and sheep in 2024, with percentages in single figures or absent altogether for each of the antibiotics tested. In contrast, the annual levelsA of non-sensitivity to several antibiotics for pigs and poultry have been consistently higher than has been seen in ruminants during each of the eight years of study.

Pigs continued to provide the highest levels of non-sensitivity to chloramphenicol, however, percentage figuresA remained in single figures for the fourth consecutive year (range 7.9-8.6%) as opposed to those observed duringA the first four years of surveillance (range 15.5-23.9%). Four antibiotics continued to exhibit non-sensitivity in doubleA figures from pigs in 2024, tetracycline (32%), trimethoprim (16%), sulphamethoxazole (15%) and ampicillin (19%).A

In 2024, poultry non-sensitivity to gentamicin (10.5%) rose to its highest level since 2018. The table below presentsA gentamicin non-sensitivity for poultry over the period 2017-2024 and suggests that there may be a rising trend towards the levels seen in the early years of surveillance.





Non-sensitivity to Gentamicin in Poultry at a Scottish Abattoir							
2017	2018	2019	2020	2021	2022	2023	2024
18.7A	16.1	9.2A	5.5	1.2	1.6	4.5	10.5

Table: Non-sensitivity to Gentamicin in Poultry at a Scottish AbattoirA

These results suggest a possible rising trend that should be closely monitored and may merit further investigation to establish possible reasons for the reversal. With the notable exception of chloramphenicol non-sensitivity in pigs, isolates from poultry generally provide greater levels of non-sensitivity for most of the other antibiotics tested.

Non-sensitivity to 3rd generation cephalosporins was detected from three poultry, one pig and one cattle isolate in 2024. All isolates were sensitive to carbapenems as has been the case for each year since the abattoir surveillance began.

All E. coli isolates have been cryo-preserved and are available for further study. More detailed results will be published in the 2024A Scottish One Health and Antimicrobial Resistance (SONAAR) report later this year.

This project exemplifies 'One Health' with SRUC Veterinary Services working alongside Food Standards Scotland and professionals at Antimicrobial Resistance and Healthcare Associated Infection Scotland (ARHAI) and Health Protection Scotland in design and execution.

Salmonella Abortions in Sheep

Salmonella infection can be a significant cause of abortion losses during the lambing season and several different serovars of Salmonella can be involved. In Scotland, the most prominent Salmonella serovar causing ovine abortion is Salmonella Montevideo.

Using *Salmonella* isolates derived from material from abortion cases submitted to SRUC Veterinary Services, typing of *S.* MontevideoA from these ovine abortions has been shown to represent different clusters, the most frequent being a group designated ST195.A

The application of highly discriminatory whole genome sequencing of S. MontevideoA isolates at the Scottish Salmonella Reference Laboratory permits more detailed comparisons of ovine isolates. The resultant data separated *S.* Montevideo ST195 into manyA smaller clusters that appear more sporadic at the highest level of discrimination. Where duplicates occur, they are typically related to a particular location and year.

These findings suggest the possibility ofA environmental contamination as potential sources of infection, involving wild birds and other wild animals.

Wildlife Crime

In addition to carrying out postmortem examinations to investigate suspicious deaths in wildlife, Veterinary Investigation Officers within SRUC Veterinary Services are occasionally called upon to act as expert witnesses. One recent example is when an SRUC veterinary pathologist was asked by The Crown Office to provide a report on photographs of a roe deer alleged to have been coursed (hunted and killed) by dogs.

Hunting with dogs is illegal in the UK. The alleged act had beenA witnessed, and the witnesses had photographed the men, the dogs and the body of a freshly dead deer. Unfortunately, the body of the deer was not recovered for examination hence the reliance on the photographic evidence. The photographs showed that the deer had died only a short time before the photographs were taken. There were injuries present on the hind quarters and neck of the deer that were typical of those caused by the deer being caught, brought down, and killed by a dog or dogs. The SRUC pathologist presented this expert witness evidence in court.

Castration and Tail Docking

In 2022 the Animal Welfare Committee produced its opinion on the implications of castration and tail docking for the welfare of lambs. This document highlighted the need for improvements to welfare by reviewing the need for castration and tail docking of lambs and the adoption of new technologies which cause less pain than traditional methods.

Recently in Scotland two new devices have been authorised for castration and tail docking of lambs. These devices are legal inA Scotland for lambs up to the age of 12 weeks. The "ClipFitter"A device has been shown to reduce the pain experienced by the lamb by severing the nerve on application, and the "Numnuts" device is used to administer local anaesthetic quickly and efficiently at the time of rubber ring application.A

In February and March 2025 a series of meetings was heldA for farmers and vets to highlight the current legal methods and best practice for castration and tail docking. TheseA meetings provided an opportunity for farmers to gain experience in handling the new devices and make decisions about which device may be most appropriate for use on their farm. The welfare benefits of leaving lambs entireA were also discussed. On some farms castration will beA unnecessary if lambs can be finished before reachingA sexual maturity.A

This knowledge was also shared with a wider audience through the Scottish Government Farm Advisory Service and by the production of online resources. A new Technical Note 'Castration and Tail Docking of Lambs was produced in January 2025 and is also available online: [Castration and Tail Docking of Lambs]


TECHNICAL NOTE TN679 / January 2025

Castration and Tail Docking of Lambs

SRUC

Summary

Castration and tail docking are often performed as routine husbandry procedures, to prevent unwanted pregnancies, and flystrike in sheep. These procedures are painful, and farmers should consider whether they are necessary. This document discusses,

- The methods of castration and tail docking
- Recently developed tools which became available since the first edition of this technical note
- The welfare code recommendations relevant to the methods
- The legislation covering the techniques

Introduction

The Animal Welfare Committee (AWC) report on tail docking and castration of lambs (2022) recommends that effective anaesthesia and analgesia should be used routinely for castration and tail docking of lambs, when the methods used are likely to cause significant pain. Any decisions about pain management and its relief should be made in discussions with a veterinary surgeon. In addition, farmers should consider whether castration is necessary for lambs destined for the prime market, prior to December (8-9 months old) when pregnancy is not a major concern, or if ram lambs can be managed separately from ewe lambs to prevent ram lambs using their energy for tupping, rather than growing.

New equipment has been developed and become more widely available in recent years with the intention of providing simple systems which reduce the pain experienced by lambs when castration or tail docking is performed.

Photo by Marion McMillan (VIO SRUC Vet Services)

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Support for Scottish Smallholders

Advice and support for smallholders was provided throughout the year. This included an infectious diseases, health & welfare session at the Scottish Goatkeepers Federation conference, and several written communications to veterinary practices and smallholder organisations to keep small scale farmers and keepers, and their local vets, up to date with topical health & welfare developments. These included information on the Avian Influenza Prevention Zone and the Scottish Kept Bird Register, where to find reliable information on Bluetongue Virus, and a bulletin on the increasing prevalence of haemonchosis in sheep in Scotland. Advice on the spread of Schmallenberg virus in some areas of Scotland during the autumn, winter and spring of 2024-2025 was also requested by smallholder and breed organisations, both ad-hoc as the situation developed, and through planned educational events.

Avian influenza and poultry disease prevention unfortunately remained pressing topics due to the presence ofA "bird flu" in the wild bird population, and outbreaks in poultry flocks. To help raise awareness among small scale andA pet poultry keepers literature was distributed at the Scottish Smallholder Festival in October 2024. Written materials and ad hoc advice about keeping livestock healthy and productive were provided for keepers.

Smallholders were also supported at this event by the provision of a dedicated 'Education Theatre' for practical health and welfare sessions. This collaborative activity was delivered by SRUC Veterinary Services, the Farm Advisory Service, and SAC Consulting. The Theatre's programme of events included:

- Practical Pig Procedures - with state-of-the-art model sows and piglets enabling attendees to practice injections, farrowing and fertility procedures safely.
- Healthy Sheep and Healthy Goat MOT sessionsA - trained smallholders in how to assess their livestock's health and welfare, fulfil their needs,A and examine and purchase healthy stock.

The practical sessions were all very popular, and were quickly booked out, as were talks on the Preparing for Sustainable Farming Animal Health Grants and Effective Management to prevent problems in various scenarios,A including sustainable grazing.

Nutritional Advice for Enforcement Agencies

This programme supports requests for nutritional advice for ruminants from organisations such as APHA. When a request comes in from an APHA officer, whether by telephone or email, advice for what can be done to immediately help with a situation is offered, and then a farm visit is organised as necessary. A visit will actively help a farmer who has found themselves in difficulty with the feeding and welfare of their stock. Videos and photographs can also be helpful to establish feeding conditions in situations where a visit is not appropriate.

For any nutritional case, it is important to establish if the quality and quantity of the forage being fed is suitable for the stock. A sample of the forage is usually analysed for dry matter, energy and protein, and sometimes minerals depending on the case. For concentrate feeds information on what has been purchased and how much is fed is requested. As the forage analysis can take time, interim advice is offered based on what is seen and the information provided. By observing the animals feeding behaviour, and using the information on the feeds, what may have gone wrong can be established and corrective advice can be offered.

A caring and compassionate approach is always adopted to encourage the farmer to work in collaboration and improve their situation. This work is carried out in confidence and without judgement as there are many variedA reasons for poor stock nutrition. This approach helps improve animal welfare and APHA receives independent nutritional knowledge and documentation of the steps required to improve current feeding practices in each individual situation.

Safe Use of MedicinesA

There are a wide range of products available for administration to farmed animals across Scotland. These range from mineral drenches through to anthelmintics that can be dispensed by a Registered Animals Medicine Adviser (RAMA) and veterinary medicinal products that must be prescribed by the farm's veterinary surgeon. What all these products have in common is that in order to improve animal health and welfare they must be correctly administered. Correct administration is also key to reducing the development of resistance to anti-microbials and anthelmintics.

In 2024 webinars were held for farmers to cover the key considerations for correct and safe medicine administration. These included:

- **Storage requirements**
- **Route of administration**
  - Safe injection and bolus techniques
  - Hygiene of needles and syringes
- **Doses e.g. volumes to be given and should it be repeated**
- **Timing of administration e.g. when to give vaccines for maximum protection**
- **Withdrawal periods for meat and milk after an animal has been treated**
- **Contraindications e.g. medicines that cannot be given together**

It was emphasised that medicinal products should always be given:

- to the RIGHT animal
- at the RIGHT dose
- by the RIGHT route

This information is available on the product packaging and from the supplier. For veterinary medicinal products links to apps providing useful information were also provided.

At a 'new to stock-keeping' event in Portree participants discussed safe medicine use, and injection sites and bolus technique were demonstrated. This is critical for animal health & welfare as poor injection techniques can lead to abscess formation which may impact on carcass quality; and poor bolusing technique can lead to damage to the soft tissues of the oral cavity, pharynx, trachea and or oesophagus.

HerdPlan (Health Planning)

Livestock health planning is recognised as an effective tool to enhance health, welfare, and productivity. The collaboration between farmers, veterinary practitioners, and other professional advisers during this process is crucial, promoting best practices and increasing farm knowledge. This collaboration not only boosts productivity but also ensures the safeguarding of animal health and welfare.

SRUC Veterinary Services is committed to facilitating this health planning process through the development of HerdPlan, a new web-app designed to make health planning more dynamic, quicker, and easier for everyone involved. More specifically, HerdPlan enables farmers to create their farm team, including their farm staff, veterinaryA practitioner, nutritionist, and other advisers, and to work together dynamically on beef/sheep health planning. The web-app is designed to fulfil assurance schemes requirements (QMS, Red Tractor, etc.).A

In 2024, the development of HerdPlan continued to progress with the support of various stakeholders including industry, government bodies, farm assurance schemes, academia, research institutions, veterinary practices, SRUC and SAC Consulting colleagues, and moved to the early-adopters phase. During that phase, aroundA ten veterinary practices provided valuable feedback for the finalA refinements of the web-app and content requirements. SRUCA Veterinary Services also prepared useful templates for veterinary practitioners on production targets, infectious diseases, other focus areas, biosecurity, and farm assurance policies along with manuals for farmers, veterinary practitioners, and farm assurance auditors on how to use the web-app.

HERDPLAN

HerdPlan was launched at the British Cattle Veterinary Association (BCVA)' congress in October 2024, with over 60 vet practitioners attending the Health Planning talk provided by SRUC Veterinary Services and Norfolk Farm Vets, and expressing interest in registering on HerdPlan.

A webinar 'How to make beef health planning pay for both you and your farmers' supporting continued professional development (CPD), was delivered in collaboration with Norfolk Farm Vets, in November 2024 with 120 vets registered to attend. The webinar can be viewed at Online CPD Academy | SRUC.

Additionally, the dynamic health planning approach, was trialled with SRUC's Easter Howgate Farm team and their vet during 2024/25. This approach encourages veterinary practitioners and farmers to work proactively throughout the year by meeting more regularly to review targets and actions set at the beginning of the production cycle and add new actions in response to new risks. Both parties found this proactive process very beneficial and will continue using it.A

The benefits of dynamic health planning were outlined in publications on five different occasions throughout theA year. These articles highlighted not only the livestock health and welfare benefits but also the economic benefitsA of improved health risk management and the potential savings for farmers. To support this, SRUC Veterinary Services also developed a free forecasting tool as part of the HerdPlan Service. This user-friendly tool helps farmers understand the value of their livestock and the financial potential for their business from health planning andA improved health risk management.

The forecasting tool considers factors like mortality, fertility, and growth rates, all of which impact the value of a herd, and provides visual insights into the potential financial gain from improved health and the risks of poor health.A It uses farm-specific data and real market prices to help farmers, and their vets, make informed decisions on healthA interventions and planning activities.

HerdPlan, which is funded by the Scottish Government, is free for veterinary practices, and the forecasting tool, which is funded by the Scottish Government and SRUC Orchard, is free for both veterinary practices and farmers. Both web-apps can be accessed through the HerdPlan website at https://herdplan.co.uk/.

Continuing Professional Development for Vets Working in Scotland

Veterinary science is evolving rapidly, with new technologies, diagnostic tests, vaccinations, and emerging diseases. Keeping up with all this information can be difficult for busy veterinary practitioners due to time constraints and the high volume of information online.

Recognising the need for continuing professional development (CPD), SRUC Veterinary Services is dedicated to helping vets working in Scotland stay current with the latest information while refreshing their existing knowledge. To support this, SRUC Veterinary Services organises various CPD events each year, ensuring veterinary practitioners are up to date with the latest advancements.

The CPD events are designed based on feedback from veterinary practitioners working in Scotland, and knowledge gaps identifiedA by SRUC Veterinary Services. In 2024/25, 18 CPD activities wereA held, including face-to-face courses, bitesize events, live webinars, and podcasts on beef, dairy, sheep, and gamebirds.

Topics covered included:

- Infectious diseases of cattle – biology, diagnosis, and control
- Practical training on parasitological techniques
- Cattle and sheep parasitology- epidemiology and control
- Novel vaccination developments
- Using vaccines to prevent disease in cattle and sheep
- Beef health planning
- Application of genomic selection in livestock
- Management strategies to reduce antibiotic use in gamebirdsA
- Guidance on cattle and sheep biosecurity
- Tips to communicate effectively with farmers.

Over 450 Scotland-based vets attended these CPD events, providing them with opportunities for discussion with experts and to learn from each other's experiences.

Live webinars are recorded and can be accessed through the Online CPD Academy | SRUC and podcasts through the SRUC | Podcast. This increases outreach and improves knowledge transfer for practitioners, particularly those working in remote areas of Scotland.

Honeybee Health

Honeybees are important as they pollinate essential food crops, plants, and trees. Honeybees are not endangered, but they do have many issues that threaten their health such as the mite Varroa destructor, notifiable diseases such as European Foulbrood (EFB) and American Foulbrood (AFB), and future threats from pests such as the Yellow-legged Hornet. SRUC advises beekeepers on these issues and the need to prevent, or control, these diseases and pests to keep their bees healthy. The past year has been a difficult year with low honey yields due to poor weather. There have also been hive losses due to high Varroa loads and queen losses.

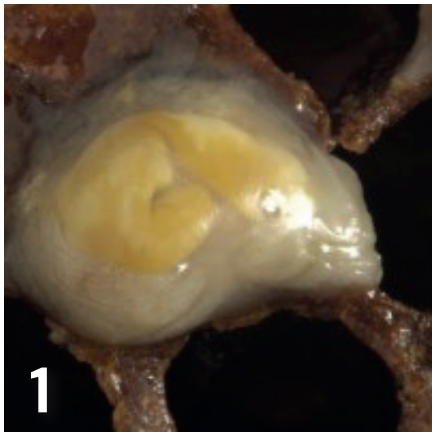

Image 1. Larvae with European Foulbrood

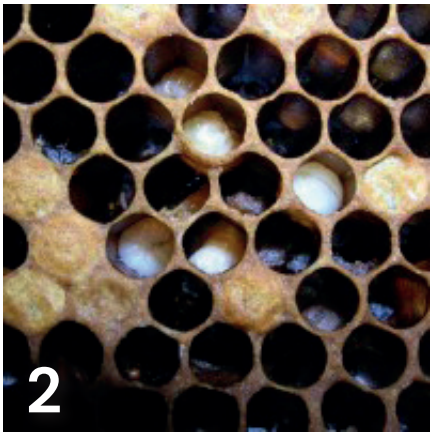

Image 2. European Foulbrood infected larvae in cells

Image 3. Bee hive inspection

SRUC supports individual hobbyist beekeepers, local associations, groups, and commercial beekeepers by advising on pests & diseases and promoting good husbandry & best practice. SRUC is part of the Scottish Government Honeybee Health Team and the Bee Health Improvement Partnership. SRUC has a key role in training and mentoring bee inspectors and has advised the Scottish Government Honeybee Health policy team. The Scottish Government has also produced a map to show where there are instances of EFB and advice on how to minimise risk.

Varroa

The Varroa mite weakens honeybees leaving colonies susceptible to the development of other diseases. The Varroa parasitic mite is found in hives across most of the UK however there are some small remote isolated pockets in Scotland where it has not yet reached.

Image 1. Varroa on an emerging beeA

Image 2. Varroa on the underside ofA a bee

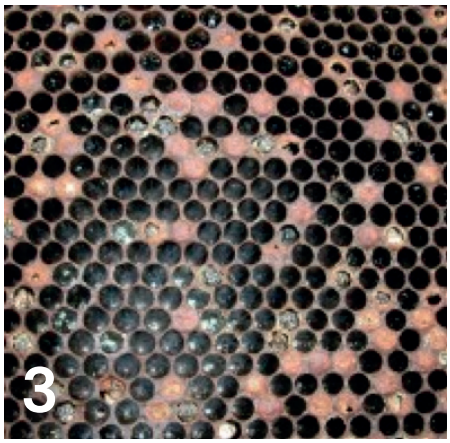

Image 3. The effects of Varroa.A Parasitic Mite syndromeA

Courtesy of the Animal and Plant Health Agency (APHA), Crown CopyrightA

As part of the Scottish Varroa Learning Package a booklet giving guidance on Varroa with reference to Varroa in Scotland has been published. It has been promoted via social media and shared with beekeeping associations and bee farmers. A downloadable copy is available via the following link:
https://www.nationalbeeunit.com/assets/PDFs/5_Beekeeping_in_Scotland/Scottish-Varroa-Learning-Package.pdf

The map of the Varroa Mite in Scotland illustrates where Varroa is found and summarises 'Do's and Don'ts'. It is alsoA available to download via the following link:
https://www.nationalbeeunit.com/assets/PDFs/5_Beekeeping_in_Scotland/1020330_SCT0124328312-001_Varrao_p1-1.pdf.

Bee Health Days

The official Government led Bee Health Day was held at Craibstone Campus in Aberdeen in JulyA 2024. In 2025 it will be held in Irvine, Ayrshire. Two Beekeeping Association led Bee Health Days were held, one in Dunblane with Stirling & Dunblane Beekeepers and one in Dumfries with South of Scotland beekeepers. Both events were a success with a wide range of bee health issues covered including notifiable diseases, Nosema, biosecurity and good forage.A

Dunblane & Stirling Bee Health DayA

South of Scotland Bee Health DayA

Anyone interested in learning more, or needing support to hold their own event, should contact the SRUC Bee Advisor Lorraine Johnston: Lorraine.Johnston@sruc.ac.uk

Yellow-legged Hornet Contingency Plan

The Yellow-legged Hornet (originally referred to as the Asian Hornet) predates on pollinators including honeybees and can destroy a whole hive. It has been established in France and Jersey and there have been cases in the South of England. It will at some point move north, an incursion could happen at any time. All bee inspectors have attended training in Jersey and the South of England and are well prepared.

	Yellow-legged hornet *Vespa velutina*	**European hornet** *Vespa crabro*
Leg:	**Yellow at ends**	**Brown**
Head:	**Black from above, orange face**	**Brown from above, yellow face**
Thorax:	**Black and velvety**	**Black and brown**
Abdomen:	**Mainly black with one obvious yellow/orange band**	**Mainly yellow with black bands spot marks like 'dripping paint'**
Size:	**< 2.5cm abdomen to head**	**larger < 3cm abdomen to head**
	Queens up to 3cm	**Queens up to 3.5cm**
Activity:	**Never active at night**	**May be active at night**

The Scottish Government has published a contingency plan in case of a siting in Scotland. This plan can be found via the following link: https://www.gov.scot/publications/pest-specific-contingency-plan-asian-hornet-vespa-velutina-nigrithorax/. If a Yellow-legged Hornet (Asian Hornet) is spotted instructions on how to report it can be found here: https://www.nationalbeeunit.com/diseases-and-pests/asian-hornet

Other useful Links and contacts are as follows:

- Beebase cards https://www.nationalbeeunit.com/assets/PDFs/5_Beekeeping_in_Scotland/BeeBase-Cards.pdf
- Honeybee 10 year Health Strategy Implementation plan https://www.gov.scot/publications/scotlands-honey-bee-health-strategy-implementation-plan/
- Scottish Beekeepers association https://scottishbeekeepers.org.uk/
- EFB map https://www.nationalbeeunit.com/EFB Flyer.pdf
- Yellow Legged Hornet https://www.nonnativespecies.org/about/news/update-on-yellow-legged-asian-hornet-2

Disease Surveillance in Wild Birds

Every year SRUC Veterinary Services carries out a significant number of postmortemA examinations of wild birds providing both disease surveillance information and supporting investigations into crime. This includes pesticide poisoning cases where deliberate poisoning of raptors is suspected.

Since the winter of 2021-22, sampling of target species of wild birds has formed the largest part of the wild bird investigations carried out by SRUC Veterinary Services. The main purpose of the surveillance is to inform the assessment of risk of Highly Pathogenic Avian Influenza (HPAI) to the poultry population andA the submissions have also reflected the impact of HPAI infectionA in the wild bird population.

After a quiet start to spring in 2024, in which there were no positive results in Scottish wild birds from April-June, there was some detection of H5N5 Highly Pathogenic Avian Influenza virus inA Scotland from July onwards, mainly in seabirds (great black-backed gulls, great skuas, fulmars, gannets) and some birds of prey (kestrel, red kite, white tailed sea eagle).

In the first quarter of 2025, the picture changed sharply, with a much higher number of positive samples detected,A almost all identified as H5N1, and with a variety of species affected: birds of prey were still represented (kestrel, redA kite, white tailed sea eagle, goshawk, sparrowhawk and barn owl), along with migratory geese visiting for the winter (Canada goose, greylag goose, pink-footed goose) and swans (mute swan, whooper swan). An increase in the number of cases in gulls was also seen (herring gull, yellow-legged full, great black-backed gull, common gull, black headed gull), and other species affected included grey herons, cormorant and eider duck.

This increase in detection of avian influenza in wild birds in Scotland (and elsewhere across Great Britain), and aA resultant rise in the number of outbreaks in poultry, has resulted in the current risk status to poultry being raised to 'medium to high' (at the time of writing), dependent on the stringency of a poultry premise's biosecurity. An Avian Influenza Prevention Zone is currently in place in Scotland. Details of cases of avian influenza in wild birds can beA found on the UK Government website: https://www.gov.uk/government/publications/avian-influenza-in-wild-birdsA

As well as potential HPAI infection, samples can be tested for West Nile Virus (WNV). WNV has not been seen in the United KingdomA but surveillance is important as disease occurs in humans and horses as well as birds, and there has been a spread of the disease northwards in recent years into more temperate areas of Europe. Wild birds act as a reservoir of infection for the virus, and the mosquito species which transmit the virus from host to host have an increasing range. One competent vector species, Culex pipiens, is present over much of GB including Scotland.

Examination of wild birds also allows potential emerging diseases or changes in disease patterns to be identified,A and SRUC Veterinary Services contributes to worldwide wildlife disease surveillance through the World Organisation for Animal Health.

Wild Bird Crime

Postmortem examinations are an essential element of the investigation of suspected crime, including poisoning involving wild birds. A significant number of wildA birds examined are submitted because crime is suspected. SRUC Veterinary Services can also identify other causes of death, which contributes to wild bird disease surveillance, or can find evidence consistent withA poisoning.

If poisoning is suspected tissue samples are taken for analysis. Where deliberate poisoning is suspected evidence from these examinations and analyses is used by Police Scotland to support their investigations and potential prosecutions. Tissues taken from birds dying from other causes are also used to check background levels of pesticides in the population and to monitor unintended effects of legal pesticide use.

Submissions for investigation of suspected crime continued at levels similar to that seen in previous years, however in some cases investigations have been limited due to risks associated with HPAI positive tissues limiting further testing that can be carried out.

SRUC Veterinary Services contributes data collected from these postmortem examinations to the Scottish Government's annual 'Wildlife Crime in Scotland' report. The latest report can be found on the Scottish Government website: https://www.gov.scot/publications/wildlife-crime-in-scotland-2023/.

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