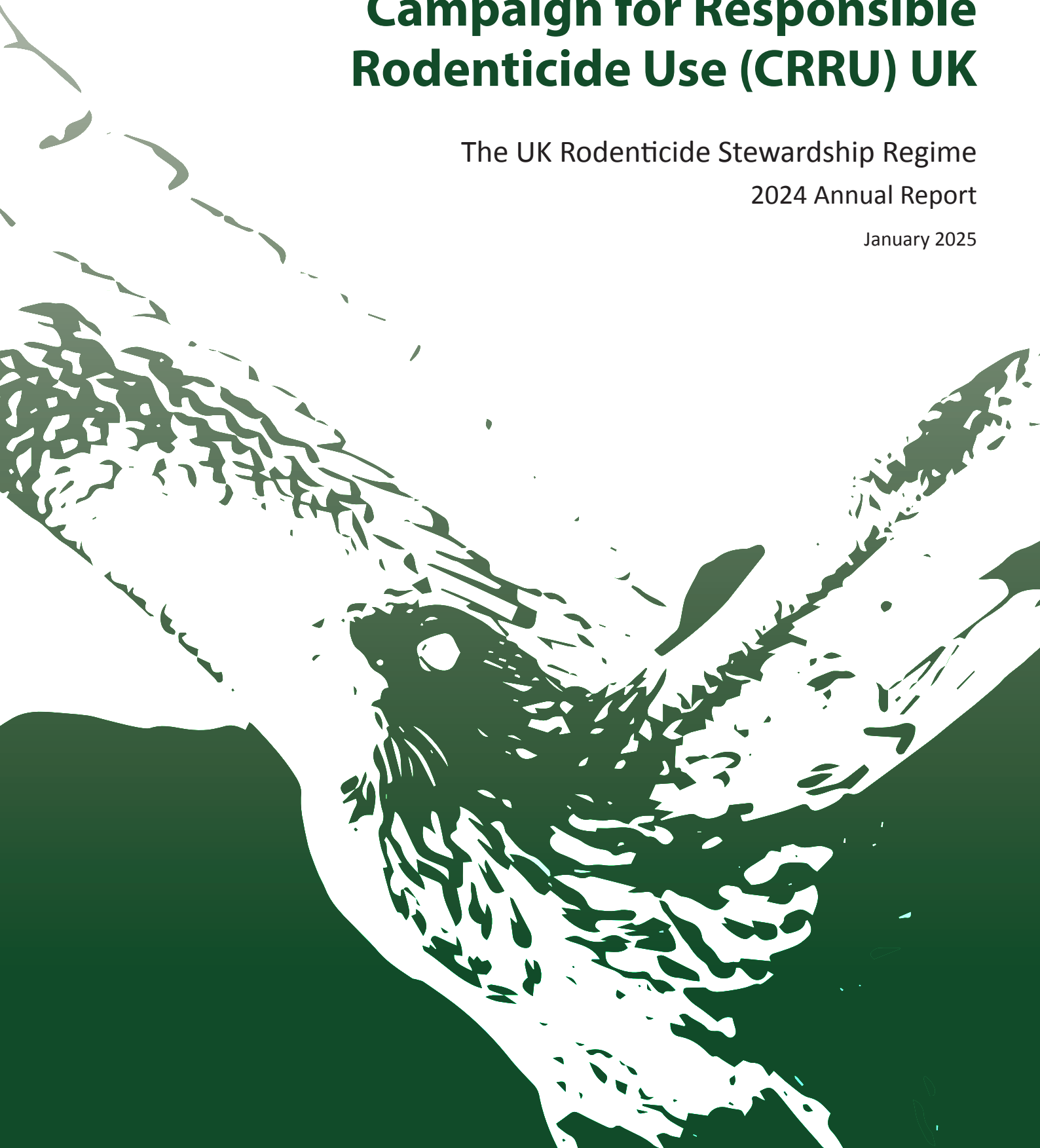


# Campaign for Responsible Rodenticide Use (CRRU) UK

The UK Rodenticide Stewardship Regime

2024 Annual Report

January 2025



# **The UK Rodenticide Stewardship Regime Campaign for Responsible Rodenticide Use (CRRU) UK Annual Report 2024**

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BASF plc

Envu

Bell Laboratories Inc

Killgerm Group Ltd

LiphaTech S.A.S.

LODI UK Ltd

Pelsis Ltd

PelGar International Ltd

Rentokil Initial plc

Syngenta Crop Protection AG

Unichem d.o.o.

Zapi SpA

**N.B. Where the acronym CRRU is used in this document it refers to the Campaign for Responsible Rodenticide Use UK.**

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## 1. Chairman's Report:

This paper represents the Campaign for Responsible Rodenticide Use UK (CRRU) report on activities and performance for 2024, which is the 8<sup>th</sup> year of the rodenticide product stewardship in the UK and associated reporting process to the Rodenticide Stewardship Government Oversight Group (GOG).

Previous annual reports have outlined in detail the reasons for creating an industry led stewardship framework for these products, coordinated by CRRU<sup>1,2</sup>. The 2024 report does not seek to duplicate this information but instead, report on changes and progress achieved during the reporting period.

Several key changes have been initiated by CRRU in 2024 which are worthy of note.

The first point I would like to recognise is the decision taken by Dr Alan Buckle during 2023 to stand down as CRRU Chairman, from April 30<sup>th</sup>, 2024, after 20 years in the role. Alan's dedication and passion for the CRRU cause has been exemplary and we can't thank him enough for his massive contribution to CRRU over the years.

I re-joined CRRU on 1<sup>st</sup> March 2024 and formally took over from Alan on 1<sup>st</sup> May 2024. Since my appointment I have worked closely with the CRRU Work Groups and engaged with a wide range of stakeholders to understand the dynamics of stewardship in the different industry sectors. I very much look forward to continuing this work to achieve our stewardship targets over the coming years.

Along with the change in Chairman, CRRU also has a new Best Practice Work Group (BPWG) and Communications Work Group Lead. Nic Blaszkowicz, follows Dee Ward-Thompson in the role of BPWG Lead, while Alan Morris has assumed the Communication WG leadership from Phil Christopher. We welcome Nic's and Alan's leadership in these roles and thank Dee and Phil for their contributions to CRRU in their respective roles.

To continue with the theme of change, at the end of 2023, CRRU Directors announced several voluntary interventions aimed at strengthening Rodenticide Stewardship, in response to stubbornly static overall levels of residues in barn owls. These changes are being made to reduce the exposure of non-target wildlife to rodenticides and to materially impact the anticoagulant residue levels detected.

The CRRU Working Groups have been focussed on implementing these changes during 2024.

The first decision is in the process of being implemented and relates to the voluntary withdrawal of "open area" and "waste dump" use of second-generation anticoagulants (SGARs). These are the areas of use where exposure to wildlife is considered to be most likely.

From 4<sup>th</sup> July 2024, it became no longer possible to purchase SGARs for open area and waste dump use and from 1<sup>st</sup> January 2025 the use of SGARs in these scenarios will not be authorised.

To facilitate the change, the CRRU Code of Best Practice<sup>3</sup> (CoBP) has been revised and re-issued in July 2024. Work has also been taking place with the Gamekeeping sector, who are one of the groups most impacted by this change, to revise their training and guidance material for users.

Despite the withdrawal of open area use being widely supported by CRRU stakeholders, some concerns have been raised by certain nature conservation groups, specifically those involved with the conservation of seabirds on islands around the UK. Multi-stakeholder discussions have started, led by the Health & Safety Executive, and are currently ongoing with an aim of addressing the concerns raised by the conservation bodies and to identify specific circumstances where an exceptional emergency situation might still permit the occasional use of these products in open areas to protect these rare bird species.

The second change initiated by CRRU relates to the training requirements for all user groups which will take effect from 1<sup>st</sup> January 2026. This change will require that all users have:

Proof of certification to a CRRU approved training course within the past 5 years

or

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1 <https://www.hse.gov.uk/biocides/assets/docs/Rodenticides-Stewardship-Regime-GOG-rev-Feb2017.pdf>

2 <https://www.thinkwildlife.org/download/crru-annual-report-2023/>

3 <https://www.thinkwildlife.org/code-of-best-practice/>

Proof of certification to a CRRU approved training course more than 5 years ago and current membership of a CRRU approved Continuing Professional Development (CPD) scheme.

From 1<sup>st</sup> January 2026 all rodenticide users will be required to achieve the same minimum standard to be able to purchase and use professional rodenticide products.

The Training & Certification and the Point of Sale Working Groups are responsible for ensuring that these measures are implemented seamlessly and that they are communicated to user groups well in advance of the changes taking effect, so that all users are prepared prior to the deadline.

Both the proposed strengthening measures are on track for implementation as planned.

Other significant areas of activity for the CRRU team in 2024 included the participation in the four GOG Work Groups, which were established to explore whether further measures could be taken to strengthen rodenticide stewardship.

The working groups are as follows:

- Resistance WG - to consider how regulatory action might be able to impact the spread of resistance.
- Monitoring Best Practice WG – to get a better understanding of how CRRUs proposed changes will contribute to a better data set.
- Residues Monitoring WG – Will look at formally extending monitoring to include more species.
- Sales data WG – Will consider the use of industry sales data to help enhance stewardship, allowing for more targeted action.

The work of these teams has not yet concluded, and we look forward to discussing the WG proposals with GOG in due course.

Despite the proactive measures being taken by the CRRU team, we have also encountered several challenges. The presence of Avian Influenza in the UK and the subsequent precautions taken to protect the general public to prevent them handling dead birds has resulted in a significant reduction in barn owl samples being received via the Predatory Bird Monitoring Scheme (PBMS), which is the primary route for CRRU, together with the UK Centre for Ecology & Hydrology, to measure and monitor levels of SGARs and the impact that stewardship is having. The consequence of this sample size reduction is that there will be no SGAR residue data available for the barn owl for 2023. At the time of writing this report we do not have the final number of barn owl submissions for 2024, however, it seems likely that 2024 will also be impacted in the same way.

It is extremely important for Stewardship performance monitoring that the PBMS submissions process is functioning normally again by 1<sup>st</sup> January 2025, in order that the target number of 100 barn owls can be collected for residue testing in order that the effect of the changes that CRRU is implementing to rodenticide stewardship can be fully measured and assessed.

The monitoring WG is also in the process of sourcing a new partner for DNA sequencing as APHA have informed us that they are no longer able to support CRRU with our tissue sampling requirements, due to changes in policy and the prioritisation of statutory testing.

We remain hopeful that a new testing partner can be found before the end of 2024 in order that we can re-start testing and actively promote this service across all professional pest control user groups.

As a final point I would like to express thanks to all the stakeholders of, and contributors to CRRU, for providing the financial resources required to run the stewardship programme, along with their time and commitment to ensure that the organisation can fulfil its obligations. It is recognised that their efforts are often provided over and above the “day job” and it is very much appreciated.



Nigel Cheeseright

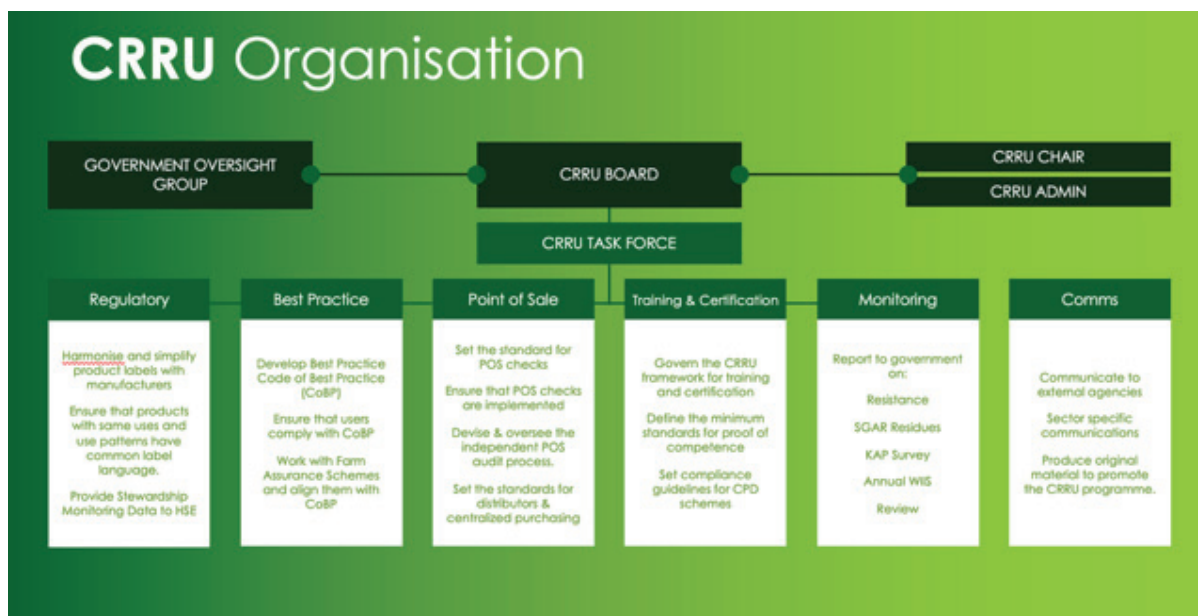
Chairman – The Campaign for Responsible Rodenticide Use UK

## 2. Reports from CRRU Work Groups on progress during 2024

### 2.1. General

Rodenticide stewardship is operated through six Work Groups (WGs), each headed by a Work Group Leader. Five are populated by expert representatives from CRRU and stakeholder organisations. The sixth WG, communications, also employs a specialist contractor. The functioning of all six WGs is directed by the CRRU Board and Task Force, the latter comprising 45 representatives from 31 different stakeholder organisations.

Figure 1: CRRU UK Organisation Structure 2024



More information about the six CRRU WGs can be found on the CRRU website (<https://www.thinkwildlife.org>)

### 2.2 Best Practice Work Group (Leader, Nic Blaszkowicz, PelGar International Ltd)

#### 2.2.1 Purpose

The Best Practice Work Group (BPWG) provides guidance and promotes responsible use of rodenticides to ensure a “competent workforce” among all professional user groups. The objective is to ensure that all users of UK authorised professional use rodenticides are aware of and apply the requirements of the CRRU CoBP and other guidance as required by product labelling. The BPWG seeks to report the operations of stakeholder organisations when they monitor and audit the compliance of their members with the CoBP, and in doing this is the principal point of contact with farm assurance schemes, so that membership of them provides proof of competence at point-of-sale. With the establishment of various codes and guidance documents, which themselves are also fundamental to delivery of training and to farm assurance scheme standards, the BPWG is instrumental in certification at point-of-sale and, thereby, in “supply chain governance”.

#### 2.2.2 Code of Best Practice and Other Guidelines

The principal instrument by which CRRU promotes best practice is the CRRU CoBP. This is based on latest knowledge of safe and effective use of rodent pest management techniques, concepts of risk mitigation developing as a result of the implementation of the Biocidal Products Regulation and with consideration to the two HSE legacy guidance documents, one for professional pest controllers and one for farmers, which preceded it. The first version was finalised and published in March 2016 after a process of consultation with all user stakeholder groups and HSE, and ahead of the introduction of the stewardship regime. However, regulatory processes, changes to use practices, development of risk mitigation measures and introduction of new active substances resulted in a need for revision. Consequently, the latest version of the code was issued by the BPWG in July 2024. A number of other guidance documents and on-line training aids have been produced, including advice on permanent and burrow baiting, guidance about rodent pest management for gamekeepers and on how to conduct environmental risk assessments. The importance of the CRRU CoBP, other guidelines and advice documents provided by the WG is demonstrated in the label phrases that appear on all authorised professional rodenticide products, as follows:

*To be used only by professional users holding certification demonstrating compliance with UK rodenticide stewardship*



*regime requirements. When this product is supplied to a user for the control of rodents, it shall only be supplied to a professional user holding certification demonstrating compliance with UK rodenticide stewardship regime requirements. Read the label before use. Using this product in a manner that is inconsistent with the label may be an offence. Refer to the CRRU Code of Best Practice (or equivalent) for guidance.*

*Where possible, prior to the treatment inform any bystanders (e.g. users of the treated area and their surroundings) about the rodent control campaign in accordance with the CRRU Code of Best Practice.*

*To reduce risk of secondary poisoning, search for and remove dead rodents during treatment at frequent intervals, in line with the recommendations provided by the CRRU Code of Best Practice.*

### *2.2.3 Changes to product authorisations and use scenarios*

With the requirement to meet environmental targets, all product authorisations for use of bromadiolone and difenacoum products in 'open areas' and at 'waste dumps' will be voluntarily withdrawn by manufacturers from 1st January 2025. This is because, although they are declining, residues of these substances still contribute to the majority of residues in barn owls, and it is considered that 'open area' uses present the greatest risk of their exposure to wildlife. This measure also brings all SGARs in line so there is no confusion as to where they can be used. Therefore, from January 2025, the only use of SGARs outdoors will rely on the label scenarios 'in and around buildings' and 'outdoors – around buildings'. Presently there is no specific regulatory definition of a 'building' to assist users in understanding the permitted scope of rodenticide applications under these scenarios.

The BPWG consulted among its members from different user sectors, and with HSE, and provides the following additional guidance, now published in the July 2024 revision of the COBP:

*"In and around buildings" is defined as: 'In and around buildings' is understood to include the entire building that is the subject of the treatment, or those areas of it that are or may become infested. It also includes the infested area around the building that needs to be treated in order to deal with the rodents that are potentially moving into the building, causing damage to the building or property, or present a risk to the health of people or other animals.*

*The term 'outdoors – around buildings' is now the officially authorised use and is seen on some product labels and in regulatory documents.*

*For the purposes of rodent pest management, a building is typically considered to be a permanent fixed structure forming an enclosure and providing protection from the elements. Buildings can be used to exclude certain non-target animals and birds from taking baits placed inside. They are usually erected on foundations, largely enclosed and constructed from wood, brick, concrete or metal. Temporary structures or structures that can easily be moved would not generally be considered to be buildings.*

*Given the diverse use areas for rodenticide products in this use scenario, it is understood that this may not directly address all situations encountered during practical rodent pest management operations. Cases where temporary structures are erected or moved into open areas to justify continued baiting will not be considered acceptable. Recognising that these products are only for use by trained professionals, reasonable judgement will be necessary.*

The WG also noted the absence of a definition of the use scenario 'waste dumps' and provide the following additional guidance, revised for the 2024 COBP:

*'Waste dumps' are also now considered to be a separate use scenario. Only baits may be applied at waste dumps that permit such use on the label. This scenario covers control of rats and disposal of rats in waste dumps and landfills where the exposure is assumed to be higher than that described in the open area scenario. For example, waste dumps do not include municipal waste management facilities (e.g. recycling centres) where treatment is undertaken to prevent risks to public health in urban settings.*

*Waste dumps are particularly challenging for a number of reasons. There is usually an abundance of alternative food that may compete with baits for the attention of target rodents. This food is also an attraction for a wide range of non-target animals that may also be present at the site and may be at risk. Operations at the site may mean that substrates are moved and there is a likelihood that baits will be disturbed. All these considerations require special attention when conducting treatments at waste dumps.*

Other updates to the COBP include an update to the availability of First Generation Anticoagulant Rodenticides (FGARs) - there are currently no rodenticide baits available for use in the UK that contain first-generation anticoagulants as their active ingredients (only a contact foam).

In addition to this the 2024 review also includes updated guidance on the use patterns and risks associated with cholecalciferol baits:

*Cholecalciferol baits may be used against Norway rats, black rats and house mice, including resistant strains (see Annex 3). Cholecalciferol is not persistent in the environment and therefore it may be assumed to present a lower risk of secondary poisoning. However, it is not free from risks to non-targets as it is, like many rodenticides, acutely toxic to some species.*

*Some baits containing cholecalciferol are permitted for use against wood mice (*Apodemus sylvaticus*). However, they are not authorised for use against the closely related yellow-necked mouse (*A. flavicollis*) and care should be exercised to ensure that this species is not inadvertently exposed to cholecalciferol baits. Some products containing cholecalciferol are authorised for use in ‘open areas’ and at ‘waste dumps’.*

#### 2.2.4 Farm Assurance Schemes

At the introduction of the regime, and the requirement to produce proof of professional competence at the point-of-sale, it was decided that membership of an approved farm assurance scheme (FAS) provided proof of competence. From March 2018 all CRRU-approved schemes published standards compliant with the CRRU COBP. Members of 17 different schemes, totalling more than 80,000 farm businesses, are now audited regularly to schemes’ standards.

In late 2023, a decision was taken by the CRRU Directors to further strengthen rodenticide stewardship and introduce the requirements from the 1<sup>st</sup> January 2026 that all buyers and users of professional rodenticide products must hold an approved training certificate and, if this is more than five years old, membership of a stewardship-specific Continuing Professional Development (CPD) scheme.

For the first time, this means farmers, gamekeepers and pest control technicians will have to be equally qualified. It also ensures that those with older qualifications are regularly brought up to date with any changes regarding the use of rodenticides.

The biggest impact of this will be on those farmers currently covered to buy and use professional rodenticides by their membership of an approved FAS. Taking this decision in late 2023 has meant that a full two-year period has been made available for those needing to gain certification or join an approved CPD scheme, details of current approved certification CPD schemes will be covered in the Training and Certification work group update.

This decision has not pleased some FAS members, and CRRU is currently working with the FAS to keep as many elements as possible in the standards that were introduced to bring them in line with the COBP. Any changes to the vermin control sections of the current CRRU approved FAS standards prior to 1st January 2026 could result in the members of that scheme no longer qualifying for the purchase and use of professional rodenticide products.

**Table 1.** The CRRU-approved farm assurance schemes, their membership numbers and the frequency of audits conducted between 2023-2024.

Scheme	Numbers on scheme	Audit frequency	Geographical coverage	Period covered
Agricultural Industries Confederation	1981	12m	UK	Oct 2023-Sep 2024
British Egg Industry Council Code of Practice for Lion Eggs	1828	6m or 18m	UK	2023-2024
Red Tractor Farm Assurance – Beef and Lamb	18832	18m	England	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Dairy	10418	18m	UK	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Dairy Goats	36	18m	UK	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Ducks	62	12m	UK	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Crops	15460	12m	England, Wales	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Fresh Produce	1837	12m	UK	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Pigs	2193	12m	England, Wales, NI	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Chickens	1913	12m	UK	Oct 2023-Sep 2024
Red Tractor Farm Assurance – Turkey	317	12m	UK	Oct 2023-Sep 2024
Quality Meat Scotland – Cattle & Sheep	8377	12m	Scotland	Sep 2023-Sep2024
Quality Meat Scotland – Pigs	183	12m	Scotland	Sep 2023-Sep2024
Scottish Quality Crops	3152	12m	Scotland	Oct 2023-Sep 2024
Farm Assured Welsh Livestock – Beef & Lamb	6615	18m	Wales	Jan–Dec 2023
Northern Ireland Farm Quality Assurance Scheme – Beef and Lamb	11616	18m	NI	Sep 2023-Sep2024
Northern Ireland Farm Quality Assurance Cereals Scheme	791	18m	NI	Oct 2023-Sep 2024
Laid in Britain	54	12m	England, Wales, Scotland	Oct 2022- Nov 2023



## 2.3 Training and Certification WG (Leader, Dr Matthew Davies, Killgerm Chemicals Ltd.)

### 2.3.1 Purpose

All aspects of the work of the Training and Certification Work Group (T&C WG) are intended to support the development and maintenance of a “*competent workforce*” and disseminate the fundamental requirements of responsible rodenticide use across the three user sectors: professional pest control, gamekeeping, farming. “*Governance of the supply chain*” is also implemented through the certification procedure applied by the T&C WG.

### 2.3.2 Training courses and certification

The major deliverable of the work group continues to be provision of CRRU-approved training through 148 training providers serving four awarding organisations, namely BASIS (Registration) Ltd. / Open Awards, City and Guilds/ National Proficiency Tests Council (NPTC), Royal Society for Public Health (RSPH) and Lantra. In the period August 2023 to July 2024, seven different CRRU-approved courses were offered and examined (an eighth course, for gamekeepers, is approved / registered and due to be relaunched by the end of 2024). A total of 4,141 certificates were awarded to training participants during the period, bringing the total number of certificates awarded for CRRU-approved courses to 45,018 during the period of the regime (Table 2). This continues to be a very substantial contribution to maintenance of a “*competent workforce*”. A report containing more details of the courses provided and certificates awarded has been provided in confidence to the GOG. From 2019 onwards all the awarding organisations provided, to GOG, information on examination pass rates.

**Table 2.** The total numbers of CRRU-approved training certificates and qualifications awarded by the following awarding organisations: BASIS (Registration) Ltd. / Open Awards, City & Guilds / NPTC, Lantra, Royal Society for Public Health.

Time Period	Total number of certificates/qualifications issued
August 2015 to July 2016	7,285
August 2016 to July 2017	6,044
August 2017 to July 2018	5,498
August 2018 to July 2019	4,711
August 2019 to July 2020	3,916
August 2020 to July 2021	4,424
August 2021 to July 2022	5,192
August 2022 to July 2023	3,807
August 2023 to July 2024	4,141
<b>Total</b>	<b>45,018</b>

### 2.3.3 Continuing Professional Development

The Continuing Professional Development (CPD) component of the stewardship scheme continues to be available. The expertise of CRRU UK member companies, stakeholder organisations and individuals has been harnessed to create a series of CPD training modules made freely available at the CRRU UK website (<https://www.thinkwildlife.org/training-certification/continuing-professional-development-cpd-and-stewardship/>).

The modules, each comprising a PowerPoint presentation taking 45-60 minutes for completion, are supported by detailed trainers’ notes. The modules are viewed independently by professional rodenticide users as a method of self-teaching. Additionally, they are downloaded by training organisations and used during face-to-face or online education events.

**Table 3.** The total numbers of downloads of CRRU learning resources to support CPD (correct at 03.10.2024)

CPD presentation	Total number of times downloaded (most introduced 31 <sup>st</sup> June 2018)
Changes to the Classification of Anticoagulants and Permitted Pack Sizes	10,846
Environmental Risk Assessments	10,044
Direct bait application in burrows. Justification and mitigation measures	7,005

Exposure of Wildlife to Rodenticides	6,873
Anticoagulant rodenticide resistance in rats and mice (April 2019)	11,200
'Less Wasteful Way of Feeding Pheasants (and Rats)' Video produced by GWCT.	17,000 views
<b>Total</b>	45,968 (17,000 views of GWCT video not included)

The five CPD modules available are:

1. Changes to the classification of anticoagulants and permitted pack sizes.
2. Environmental Risk Assessments.
3. Direct application of bait in burrows. Justification and mitigation measures.
4. Exposure of Wildlife to Rodenticides
5. Anticoagulant rodenticide resistance in rats and mice.

A further resource to support CPD, released in 2020, is an educational video 'Less Wasteful Way of Feeding Pheasants (and Rats)' Video produced by GWCT.

There has been a total of 45,968 CRRU CPD module downloads (Table 2, correct at 03.10.2024) since introduction of the scheme on 31 July 2018, which is up from 29,111 in the previous report to GOG. The module on Environmental Risk Assessment has proved particularly popular, with 10,044 downloads since CPD support was established. Also note the 17,000 views of the GWCT video.

CRRU-approved CPD schemes are listed here: <https://www.thinkwildlife.org/training-certification/continuing-professional-development-cpd-and-stewardship/>

#### 2.3.4 A summary of the CRRU UK T&C WG achievements, 2023/24

- Training Framework review: All CRRU-approved training and certification remains Ofqual regulated, with the final change being in place from 1st January 2023. Ofqual regulation has provided extra rigour, further security measures and 'comparability' between similar qualifications. For example, invigilation has become a requirement. This means that unsupervised rodent control examinations are not possible. 'Comparability' considerations include learning hours and closer alignment of this.
- The list of CRRU-approved certification has been updated to reflect Ofqual regulation <https://www.thinkwildlife.org/training-certification/>
- The Open Awards Level 2 Award in Rodent Control for Gamekeepers and Rural Environments is due to be re-launched by the end of 2024
- It was agreed that, from 2026, users must hold a stewardship-approved certificate obtained within the last five years (i.e. from 2021 onwards in 2026) or evidence the alternative of older approved certification in conjunction with CRRU-approved CPD participation (to prove up-to-date knowledge). This will be required at the point-of-sale.

These changes are laid out on the CRRU website and below <https://www.thinkwildlife.org/training-certification/continuing-professional-development-cpd-and-stewardship/> :

Important Changes to Proof of Competence Requirements for Purchasers and Users of Professional Use Rodenticides from 1st January 2026

CRRU UK has decided that from 1st January 2026 the following two options will be the only criteria at the point of sale which sellers of professional use rodenticides will consider as proof of competence for the purchase and subsequent use of professional use rodenticides in the UK.

Either :

Proof of certification to a CRRU UK approved training course within the past 5 years (<https://www.thinkwildlife.org/training-certification/>)

Or:

Proof of certification to a CRRU UK approved training course more than 5 years ago and current membership of a CRRU UK approved Continuing Professional Development (CPD) scheme.

As five-year certificate expiry dates approach, holders can either repeat the training and requalify, or join a CPD scheme.

CRRU UK – approved CPD schemes

Basis Prompt <https://basis-prompt.co.uk/>

BPCA Registered <https://bpca.org.uk/registered>

Timeline is as follows:

- 2023: Ofqual regulation now in place for all currently available training & certification. Criteria set for CPD schemes and two schemes were approved by end of the year. A list of approved CPD schemes was published.
- 2024: Work with POS regarding CPD scheme & training checks – POS are in support of the changes.
- 2025: Last year for users to join CPD schemes or re-certify ahead of 2026 deadline. Trial POS audits in preparation for 2026 deadline. CRRU to produce update material to support CPD
- 2026: All users to hold either a training certificate from 2021 onwards (within the last 5 years) or an older certificate with CPD proof. POS audits to include these checks, as a requirement, for the first time.

**Table 4. Certification allowing purchase and use professional rodenticides labelled under stewardship requirements (correct at 02.10.24)**

<b>Current certification</b>
<a href="#">RSPH/BPCA Level 2 Award in Pest Management (2010 onwards)</a>
<a href="#">RSPH/BPCA Level 2 Certificate in Pest Management (2010 onwards)</a>
<a href="#">City &amp; Guilds NPTC Level 2 Award in the Safe Use of Pesticides for Vertebrate Pest Control for Rats and Mice (QCF) (PA-R&amp;M) (2013 onwards)</a>
<a href="#">Lantra Awards Level 2 Award in Rodent Management (2022-onwards)</a>
Open Awards Level 2 Award in the Principles of Rodent Control (2023-onwards)
<a href="#">RSPH Level 2 Award in the safe use of rodenticides (2015 onwards)</a>
BPCA Using Rodenticides Safely (Exam through Lantra) (2023-onwards)
Open Awards Level 2 Award in Rodent Control for Gamekeepers and Rural Environments (2023-onwards)
Note: CRRU Wildlife Aware (accredited by BASIS). For holders of qualifications listed above issued before the dates shown, this is an approved update to certified status.

<b>Grandfather certification</b>
Killgerm Principles of Rodent Control (2016 – January 2023, through BASIS)
Rat Control for Gamekeepers (2015 – January 2023, through BASIS)
BPCA Using Rodenticides Safely (2015 – January 2023, through BASIS)
RSPH Level 3 Diploma in Pest Management (2010 – 2016)
RSPH/BPCA Level 2 Certificate in Pest Control (2004 – 2010*)
RSPH Level 2 Certificate in Pest Control (2000 – 2004*)
RSH Certificate in Pest Control (pre-2000 inclusive*)
BPCA Diploma in Pest Control Part 1 (Previously ‘BPC Diploma Part 1’, ‘RSH/BPC Certificate in pest control’, ‘BPC Diploma’, ‘Operators certificate of proficiency’, ‘British Pest Control Association Certificate in general pest control’ and ‘Certificate pre-1988’) (pre-2004 inclusive)
NPTC Level 2 Certificate of Competence in Vertebrate Pest Control (assessed in the context of rats and mice) (2002 – 2014)
Lantra: Rodent Control (previously Rat and Mouse Control) (2009 – 2015)
Lantra: Rodent Control on Livestock Units (2013 – 2015)
Lantra: Rodent Control on Farms (2015 – 28 <sup>th</sup> February 2018 inclusive) Note: This entry refers only to the customised training provision version of ‘rodent control on farms’. Certificates are identified by the text ‘customised provision’.
Lantra: Rodent Control on Farms (2015 -2022) Online: <a href="http://elearning.lantra.co.uk">elearning.lantra.co.uk</a>
Lantra: Responsible and Effective Control of Commensal Rodents (2015-2022) Online: <a href="http://elearning.lantra.co.uk">elearning.lantra.co.uk</a>
Killgerm Principles of Rodent Control (previously Killgerm Rodent Biology and Control) (2004 – 2015)

\*RSH / RSPH certificates may bear a date up to two years after the end date stated above. These are still acceptable at the point-of-sale. Note 1: The 'BPC Certificate of Proficiency (1989 – 1994)', 'BPCA Diploma Part II (1995 – 2008)' and 'BPCA Accredited Technician in Pest Control (2008 onwards)' which became the BPCA Advanced Technician in Pest Management from 2016 and BPCA Certificated Advanced Technician in 2020 are all accepted at the point-of-sale because other approved certification is a prerequisite for these. Note 2: CRRU Wildlife Aware (accredited by BASIS) For holders of qualifications listed above issued before the dates shown, this is an approved update to certified status.

### 2.3.5 Future work

**COMMUNICATION: A major communication campaign needs to be planned by the end of 2024 for roll-out in early 2025**

**Produce CRRU update material early 2025 – to satisfy point 9 of the below.**

A CPD framework remains approved by the CRRU T&C WG (Table 5). BPCA Registered and BASIS PROMPT are the available CRRU-approved schemes. The mapping form is below:

Table 5. CPD Framework for approval process (CRRU UK Training & Certification WG)

Criteria for CPD schemes to be approved by CRRU – mapping form

CPD scheme approval criteria	Name of scheme:
<i>Criteria</i>	<i>Evidence</i>
1. <b>Quantifiable.</b> A system for points / hours / credits	
2. <b>Target.</b> A quota for points / credits / hours to meet annually or other time-period	
3. <b>Evidenced.</b> Learner submits evidence of learning e.g. training / events	
4. <b>Recordable.</b> Learner records for points and quota	
5. <b>Demonstrable.</b> Membership can be proven at point-of-sale by certificate or ID card or other suitable means	

<p><b>6. Auditable.</b> Records accessible for point-of-sale audits and CRRU T&amp;C WG compliance checks</p>	
<p><b>7. Submittable.</b> Data on numbers of CRRU compliant members to be submitted to Government Oversight Group annually, via Monitoring Work Group</p>	
<p><b>8. Membership criteria.</b> Members to hold CRRU approved certification</p>	
<p><b>9. Rodent control content.</b> 3 points / hours / credits, of rodent control content that conforms to CRRU guidelines, required each year. This is to be assessed as part of the event.</p>	

## 2.4 Regulatory Work Group Activities 2024 (Leader, Sarah Bull, BASF plc)

### 2.4.1 Purpose

Since inception, there has been no change to the remit of the CRRU Regulatory Work Group, which is to:

- Work towards harmonisation and simplification of product labels to permit all appropriate risk mitigation measures to be understood and applied by all user groups.
- To provide stewardship monitoring data to HSE (as required by the UK Rodenticide Stewardship Regime).
- To support the three key benefits of the regime, namely “supply chain governance”, “competent workforce” and “monitoring compliance”.

A requirement for the UK authorisation of a professional rodenticide product is provision by the authorisation holder of a full range of product stewardship actions meeting the ‘High Level Principles’ published by HSE. This requirement is satisfied by membership of CRRU, and thereby participation in the UK Rodenticide Stewardship Regime.

As a condition of authorisation, monitoring data continues to be submitted by the Regulatory Work Group to HSE.

### 2.4.2 Regulatory Work Group Activities 2024

The CRRU Regulatory Work Group were instrumental in implementing the decision of CRRU Directors to withdraw use of bromadiolone and difenacoum in open areas and waste dumps. Applications to remove these uses were submitted to HSE in accordance with the agreed timeline and authorisation holders pro-actively removed uses from product labels in parallel, facilitating a gradual removal of open area and waste dump uses on-label. Revised authorisation documents were subsequently issued specifying the agreed harmonised phase-out dates of 4<sup>th</sup> July 2024 for sales and 31<sup>st</sup> December 2024 for use.

### 2.4.3 Future work in 2025 and beyond

A formal public consultation of the HSE's Chemical Legislative Reform is expected in early 2025 and will provide an opportunity for CRRU members to feedback on the proposals and the requirement for a simplified, less burdensome, more cost effective regulatory regime whilst maintaining and improving safety of rodenticide application in the UK. One area the WG are keen to explore without delay is the user friendliness of labels.

The CRRU Regulatory Work Group will keep a watching brief on any changes impacting SGAR authorisations/use following the ongoing active substance and product renewals and identify any areas where communication of changes to end users will be needed.

## 2.5 Point-of-Sale Work Group (Leader Rupert Broome, Killgerm Chemicals Ltd.)

### 2.5.1 Purpose

The projects implemented by the Point-of-Sale Work Group within the stewardship regime are focused on *"governance of the supply chain"*.

### 2.5.2 Independent Audit Process for Point-of-Sale Compliance

A cornerstone of the stewardship regime is the imposition of competence checks at the point-of-sale. As well as *"supply chain governance"*, these checks drive the *"competent workforce"* benefit because only appropriately competent personnel can purchase professional rodenticides. The importance of this measure within the regime overall made necessary a procedure to audit its application.

Following the successful pilot project in 2017, a full Rodenticide Point of Sale (RPOS) audit procedure was implemented in 2018 and has been in place since, including throughout the Coronavirus pandemic, during which time audits were conducted remotely.

The Rodenticide Point of Sale (RPOS) audit process is conducted by an independent agency, BASIS (Registration) Ltd. It is the responsibility of all product authorisation holders to ensure that their products are placed on the market only through outlets which are registered with the new Rodenticide Point of Sale (RPOS) audit scheme run by BASIS and have passed an audit.

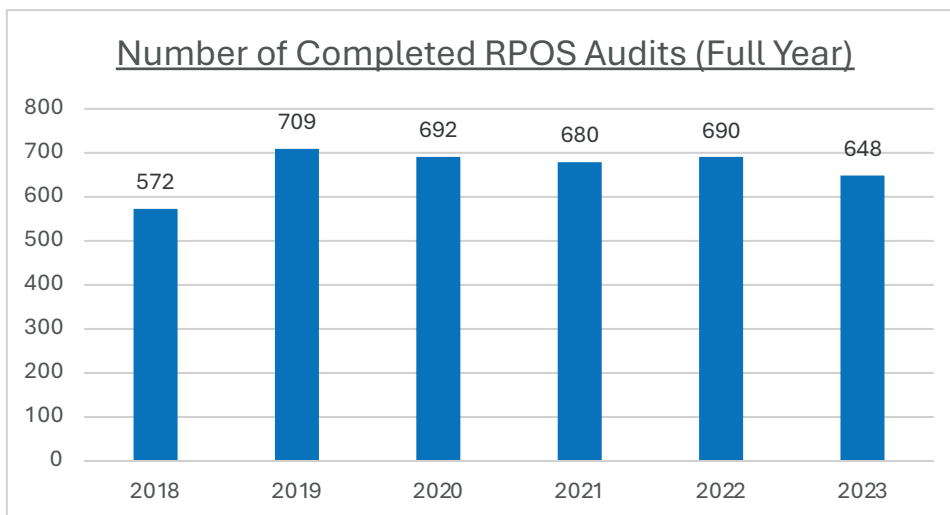
The primary highlights of the RPOS audit outcomes year to date to September 2024 are as follows :

- A decrease of 1% in the total numbers of premises registered to undergo the RPOS audit. (654 year to date to end September 2024 versus 662 throughout full year 2023.)
- YTD in 2024 the regional split of premises registered to undergo the RPOS audit has remained broadly stable at:

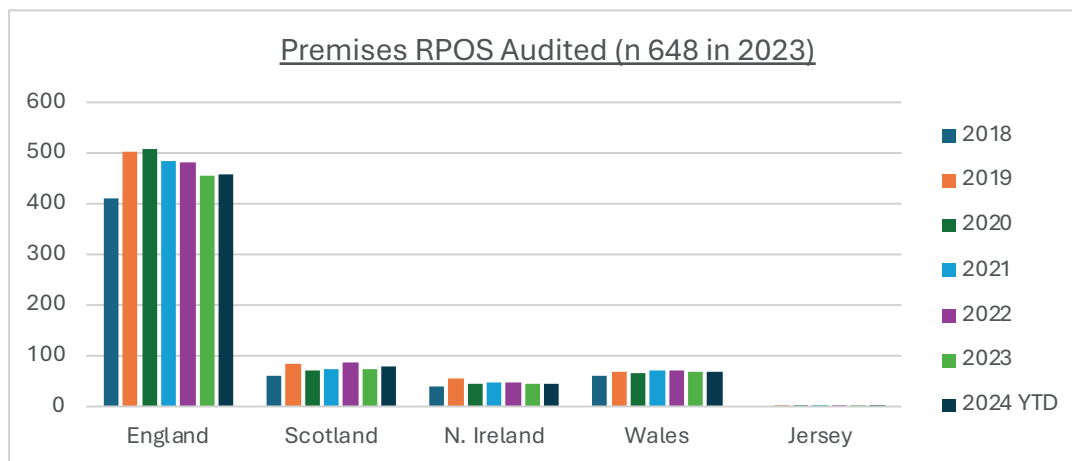
○ England	70%
○ Scotland	12%
○ Northern Ireland	7%
○ Wales	10%
- Of the premises audited as of 25<sup>th</sup> September 2024, there has been a further increase in the proportion of outright passes at the point of the initial audit, which now stands at 92.8% YTD 2024 (up from 83% at the same point YTD in 2023). This may be attributable to a number of factors; however it is likely that the increased familiarity of sales outlets with point of sale controls is increasing the compliance rate with initial audits.
- There has been a reduction in the proportion of premises obtaining a qualified pass with their initial audit. This has decreased to 5% YTD in 2024 from 17% at the same point in 2023. Each of these premises will have been required to demonstrate to BASIS after their initial audit that improvements have been made to their Point of Sale controls before BASIS grant them certification for 2025.
- The number of premises which failed to pass the audit (including premises for which an audit visit failed to occur) remained low at the initial audit stage, being stable at only 1.7%.
- In addition, YTD in 2024 there have been 22 deletions from the RPOS audit. This represents outlets which had previously been participating in the RPOS audit scheme, however they have decided not to continue in 2024. CRRU do not attach any particular significance to these deletions as they represent only 3% of overall outlets audited YTD in 2024.
- In addition, it is worth noting that in 2024 one premise on the island of Jersey dropped off the RPOS audit register, however two other outlets remain registered for the RPOS audit. The UK scheme has been extended to the Bailiwick of Jersey since 2019.



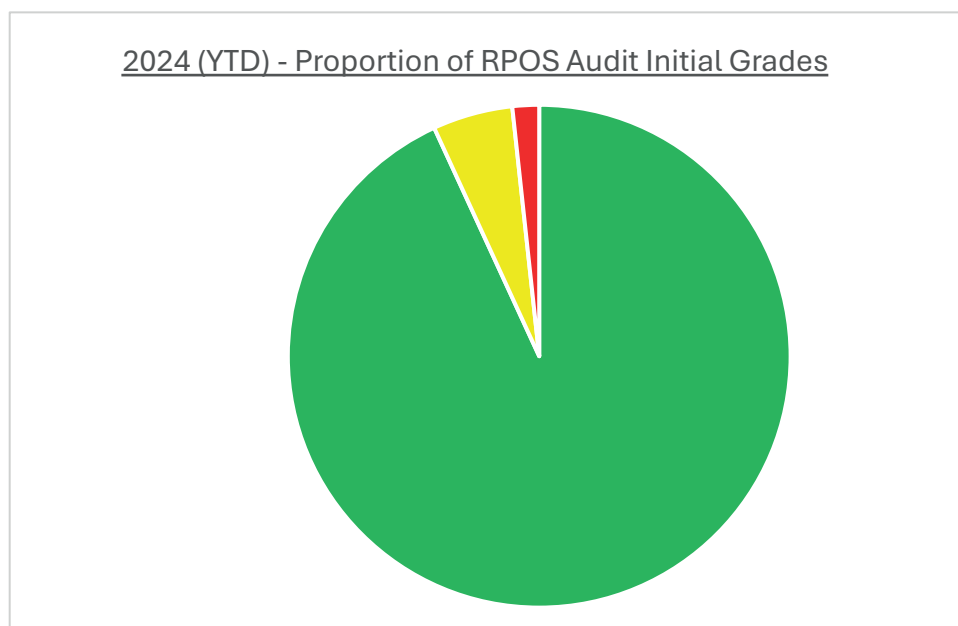
**Figure 2. The Number of Completed RPOS Audits 2018-2023**



**Figure 3. RPOS Audits Conducted by Region**



**Figure 4. RPOS Audit Initial Grades - 202**



## 2.6 Monitoring Work Group (Leader, Richard Moseley, Syngenta Ltd.)

### 2.6.1 Purpose

The Monitoring Work Group provides oversight of and reports studies from independent contracted agencies on the progress of the stewardship regime to meet the HSE/GOG key benefit “monitoring compliance”. Furthermore, through the supply of anticoagulant resistance information to practitioners, to allow them to make informed choices about the use of active substances, the WG also supports the key benefit of a ‘competent workforce’<sup>1</sup>.

### 2.6.2 Anticoagulant residues in barn owls (UK Centre for Ecology & Hydrology)

#### 2.6.2.1 Current Rodenticide Use in the UK

The disposition of anticoagulant residues in UK barn owls is related to the quantities of products used containing the different anticoagulants and their use patterns. Five second-generation anticoagulant rodenticides (SGARs) are currently authorised for use in the United Kingdom – brodifacoum, bromadiolone, difenacoum, difethialone and flocoumafen. Only difenacoum and bromadiolone were historically authorised for use both in and around buildings and in open areas in Britain. The other three compounds were restricted to indoor use as a mitigation measure to reduce unintentional primary and secondary exposure and poisoning of non-target species. All five SGARs are currently eligible for broadly similar authorisations that include in and around buildings. Bromadiolone and difenacoum are no longer authorised for application in ‘open areas’ and ‘waste dumps’ and the use up period for old label product will end 31<sup>st</sup> December 2024.

#### 2.6.2.2 Barn owl as sentinel species and SGAR liver residue analysis

The barn owl (*Tyto alba*) is used for SGAR exposure monitoring as it is considered a sentinel for wildlife species that are generalist predators of small mammals in rural areas.<sup>4</sup> The specific work reported is conducted under contract for CRRU by UK Centre for Ecology and Hydrology and forms part of the wider Predatory Bird Monitoring Scheme (PBMS), of which CRRU is a co-funder (see <https://pbms.ceh.ac.uk/>). Every year the aim is to test 100 barn owls for liver SGAR residues. Carcasses are submitted to the PBMS by members of the public throughout the years and are from across the whole of Great Britain, although predominantly England and Wales. All barn owls received by the PBMS are autopsied and are found to have died from various causes, but mainly from road traffic collisions and starvation.

Usually more than 100 barn owl carcasses are submitted to the PBMS and all undergo autopsy. The sample for liver residue analysis is selected to hold constant at about 30% the percentage of first year birds and those that are older. The annual residue data are compared with those from 395 barn owls that died between 2006 and 2012 (hereafter termed baseline years), prior to changes in anticoagulant rodenticide (AR) authorisations and onset of stewardship.<sup>5</sup>

#### 2.6.2.3 Barn Owl Carcass Availability 2023 and Impact on Residue Reporting

Due to avian influenza impacting the collection of Barn Owl carcasses, the sample size of barn owls for the 2023 analysis was only 35 birds. This number is far below the 100-bird annual target and would not give a statistically sound result if tested, potentially containing a skewed age range of birds collected in a limited time period. These results would not be comparable with previous years data. As per the advice given by UK Centre for Ecology and Hydrology it was decided not to carry out residue testing on these samples.

At the time of writing this report we do not have the final number of barn owl submissions for 2024; however, it is possible that 2024 will also be impacted in the same way as 2023. If this is the case there will be no residue reporting available until 2026.

### 2.6.3 The Barn Owl Monitoring Scheme (BOMS)

CRRU took the decision that the 2022 Barn Owl Monitoring Scheme survey will be the final BOMs. The BOMs has now provided 7 years of data sets that have provided us with a detailed benchmark of the key factors that impact the nesting and fledging behaviour of Barn Owls in the survey areas. It is clear from the data that successful nesting number go up and down depending on a number of factors, including weather characteristics and prey availability. Contamination by SGAR's has never appeared to be a factor in the relative success or failure of nesting and egg laying amongst monitored owls. All previous BOMs studies have shown that the eggs and barn owls (both young and adult) studied reveal no unusual growth characteristics or physical deformities (such as abnormal feather development or pattern of moult), that might suggest any sub-lethal effects of exposure to anticoagulant rodenticides.

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<sup>4</sup> HSE. 2015. UK Anticoagulant Rodenticide Product Authorisation and the CRRU Stewardship Scheme. Information document, January 2015. Health and Safety Executive. 12 pp.

Should further BOMs studies be deemed necessary in the future, CRRU will investigate the possibility of re-instating the survey

## 2.6.4 Resistance in UK Rats and Mice (University of Reading)

### 2.6.4.1 Background

An annual report of the status of resistance monitoring in UK, and elsewhere in EU, is a requirement for monitoring the delivery of the stewardship regime set by the GOG. Resistance to anticoagulant rodenticides is widespread in the UK among both house mice and Norway rats. At least five resistance mutations occur in Norway rats that are known to have detrimental effects on the efficacy of some active substances, and at least two in house mice.<sup>6</sup> Therefore, the provision of information to practitioners on the geographical distribution of resistance mutations in UK rodent populations will have significant benefits for the outcome of the stewardship regime. The use of only fully effective substances in areas where resistance is present will ensure that control is achieved using the smallest quantity of active substance and, thereby, minimise emissions to the environment. It will also ensure that resistant infestations are removed efficiently to prevent selection that will result in the spread of resistance and increased severity. More potent and persistent anticoagulant substances are required in resistance foci and effective rodent control within foci means that less severe substances maintain their efficacy, once again conferring benefits for the environment.

To provide resistance information for practitioners, permitting informed choices to be made about product use for resistance management, CRRU has conducted annual surveys of resistance using the DNA sequencing technique. Annual reports are published which give maps showing the scope of existing resistant Norway rat foci.<sup>7</sup> However, although limited information is available for house mice what is available shows the wide distribution and high prevalence of resistance in that species. CRRU resistance data is provided to the international Rodenticide Resistance Action Committee and this organisation maintains interactive maps wherein users can search to find the status of resistance in their locality and obtain information about effective interventions (see: <https://guide.rrac.info/resistance-maps.html>).

### 2.6.4.2 Resistance Results 2023 - 2024

A total of 71 rodent tissue samples were received by the Animal and Plant Health Agency (APHA), who held the contract for resistance-testing on behalf of CRRU, between August 2023 and July 2024. Of these 71 samples, 18 did not yield DNA material that could be sequenced. Of the remaining 53 samples, 47 were of Norway rat tissue and 6 were house mice.

53 viable samples are a reduction on previous years totals. The reasons for this reduction are not clear, but this may be due to better awareness of resistance by operators who no longer feel the need to submit samples because they are located in resistance foci. It is CRRU's intention to increase efforts to encourage the submission of samples, especially in under reported locations throughout the UK. However, unfortunately APHA have informed us that they are no longer able to support CRRU with our tissue sampling requirements, due to changes in policy and the prioritisation of statutory testing. CRRU are currently looking for another partner and samples submitted up to the end of 2024 will be stored by APHA and transferred to the new testing partner when contracts are in place. When the new partner is ready to begin collection of samples, CRRU will renew efforts to collect more samples, and to educate on the best way to collect samples to avoid degraded samples that do not yield DNA (Quarter 1 2025 is the target for a new push on sample collection)

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<sup>5</sup> Shore, R.F., Henrys, P.A. & Walker, L.A. 2014. Power analysis of liver second generation anticoagulant rodenticide (SGAR) residue data in barn owls from Britain: a Predatory Bird Monitoring Scheme (PBMS) report. CEH contract report to the Health & Safety Executive. 45pp. <https://wiki.ceh.ac.uk/x/DAIDC>.

<sup>6</sup> Buckle, A. P. 2013. Anticoagulant resistance in the UK and a new guideline for the management of resistant infestations of Norway rats (*Rattus norvegicus* Berk.) *Pest Management Science* 69(3):334-341.

<sup>7</sup> Buckle, A., Jones, C., Talavera, M. and Prescott, C. 2020. Anticoagulant Resistance in Rats and Mice in the UK – Summary Report with new data for 2019-20. University of Reading. Report Series VPU 20/002. 19 pp. Available at: <https://www.thinkwildlife.org/downloads/>. Date accessed: 26.02.21.

**Table 6. The main VKORC1 mutations in Norway rats (NR) and House mouse (HM) in UK mentioned in this report.**

Species	Mutation	Abbreviations	Where present
NR	Leucine128Glutamine	L128Q <sup>†</sup>	Central Southern Scotland, Yorkshire, Lancashire, and elsewhere
NR	Tyrosine139Serine	Y139S <sup>†</sup>	Anglo-Welsh border, North Yorkshire
NR	Leucine120Glutamine	L120Q <sup>†</sup>	Hampshire, Berkshire, Essex, Norfolk and elsewhere
NR	Tyrosine139Cysteine	Y139C <sup>†</sup>	Gloucestershire, Norfolk, Lincolnshire, Yorkshire, SW Scotland and elsewhere
NR	Tyrosine139Phenylalanine	Y139F <sup>†</sup>	Kent, Sussex, Norfolk, Suffolk and elsewhere
HM	Tyrosine139Cysteine	Y139C <sup>†</sup>	
HM	Leucine128Serine	L128S <sup>†</sup>	

<sup>†</sup> Known either from field experiments and/or field experience to have a significant practical effect on anticoagulant efficacy

Brown rats: Strongest = L120Q > Y139S > Y139F > Y139C > L128Q = Weakest

House Mouse: Strongest = L128S Y139C > L128S > Y139C = Weakest

#### 2.6.4.3 Norway rats – historical records

During the period 2009 to July 2024, 631 Norway rat tissue samples from around the UK have been studied using the DNA sequencing technique. Of these, 474 (**75.2%**) were found to possess one or more of the resistance mutations that are known to have a significant effect on anticoagulant rodenticide efficacy (Buckle, 2013). The remaining 157 animals (24.9%) carried the wild type genome. Maps showing the geographical locations from which these samples were sent have been presented previously (Prescott et al., 2018; Buckle et al., 2020a, 2023) and are also the main source of the UK mapping information available at the website of the international Rodenticide Resistance Action Committee (<https://guide.rrac.info/resistance-maps.html>). It is important to keep in mind that these samples are generally submitted by those having difficulty in obtaining effective control of rat infestations with anticoagulants and may not reflect the true frequency of resistance in the UK Norway rat population as a whole.

#### *Norway rats – records for 2023-2024 and frequency of resistance*

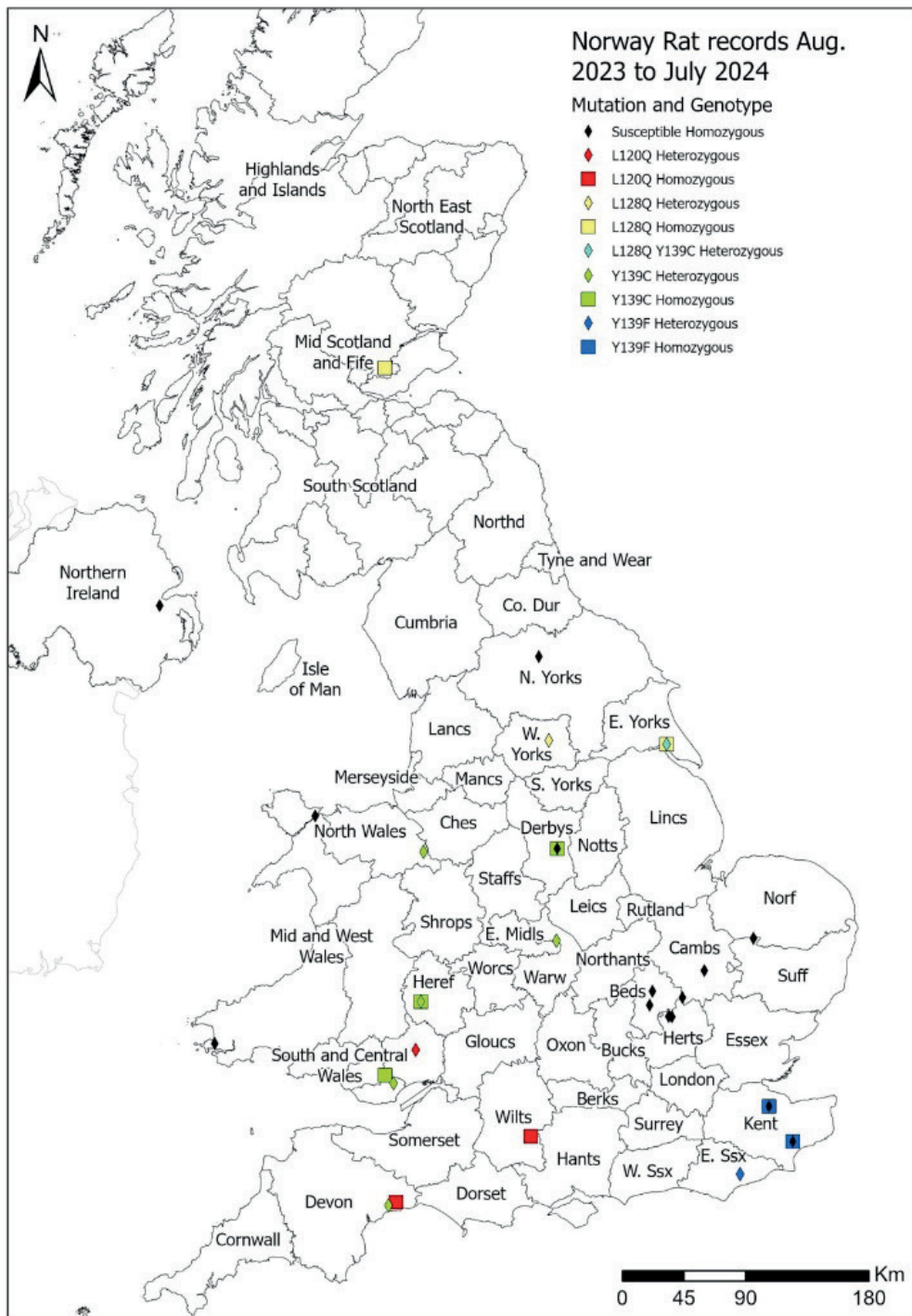
Among the 47 samples (Table 7) that were capable of being sequenced in the period August 2023 to July 2024, a total of 23 (**48.9%**) were found to carry one of the five main Norway rat anticoagulant resistance mutations (Table 6). The remaining 24 animals (51.1%) carried the wild type genome (see Figure 5). The proportion of resistant Norway rats in the sample differed appreciably from that found in previous surveys (*i.e.* **2020, 74.1%; 2021-2022, 74.1%**). The reasons for this are unknown but it is more likely to be the result of sampling bias than a decrease in the incidence of resistance among UK Norway rats.

Table 7. The numbers of Norway rats tissue samples received and analysed in 2023/24, and their status of resistance or susceptibility. (See Table 9 for further explanations of the different resistance mutations.)

Resistance status	Genotype		Totals
	Homozygous	Heterozygous	
L120Q	2	1	3
L128Q	4	2	6
Y139C	4	6	10
Y139F	2	1	3
Y139S	0	0	0
Totals (mutations)	12	10	22
L128Q and Y139C*	0	1	1
L120Q and Y139C*	0	0	0
Totals (hybrid resistance)	0	0	1
Susceptible			
Total (susceptible)	24	-	24

\*These four animals were heterozygous for each of two the resistance mutations. Each of these mutations is also counted separately in the records above.

Figure 5



Among those rats that carried a single SNP, the severe Y139C mutation was the most common (21.4%, n=10) in the 2023-24 sample. The numbers of resistant samples carrying L120Q, which had previously predominated, declined to just 6.4% of those recorded (n = 3). It is likely that this is because this resistance is well known in central southern England and practitioners are no longer minded to submit samples. Two of the three L120Q records were towards the likely extreme western edge of the focus and may indicate continuing spread (Figure 5).



A single animal found on the western outskirts of Kingston upon Hull possessed both the L128Q and Y139C mutations (Figures 6 and 7). Hybrid resistances had been found in previous surveys in many localities.

Figure 6

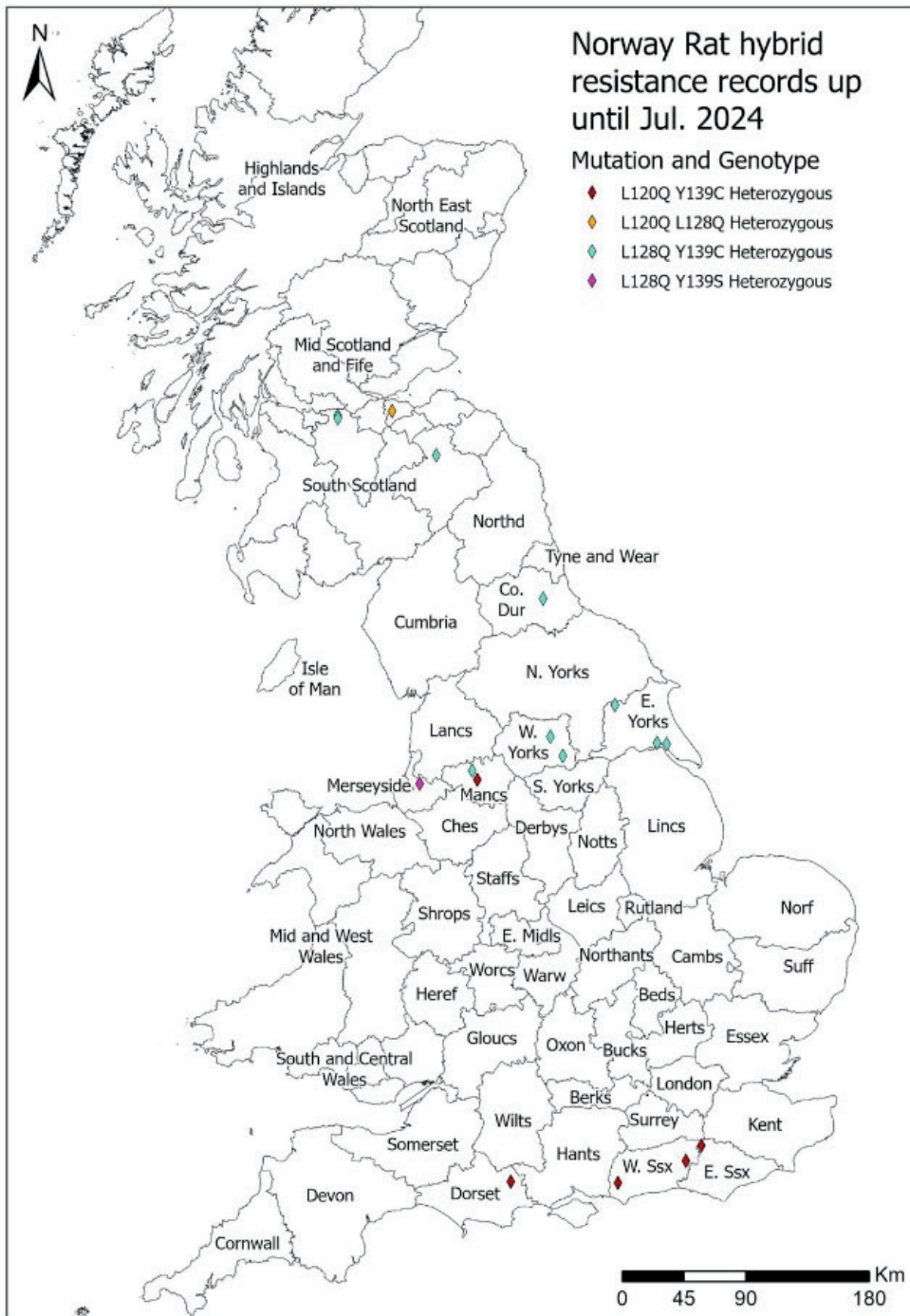
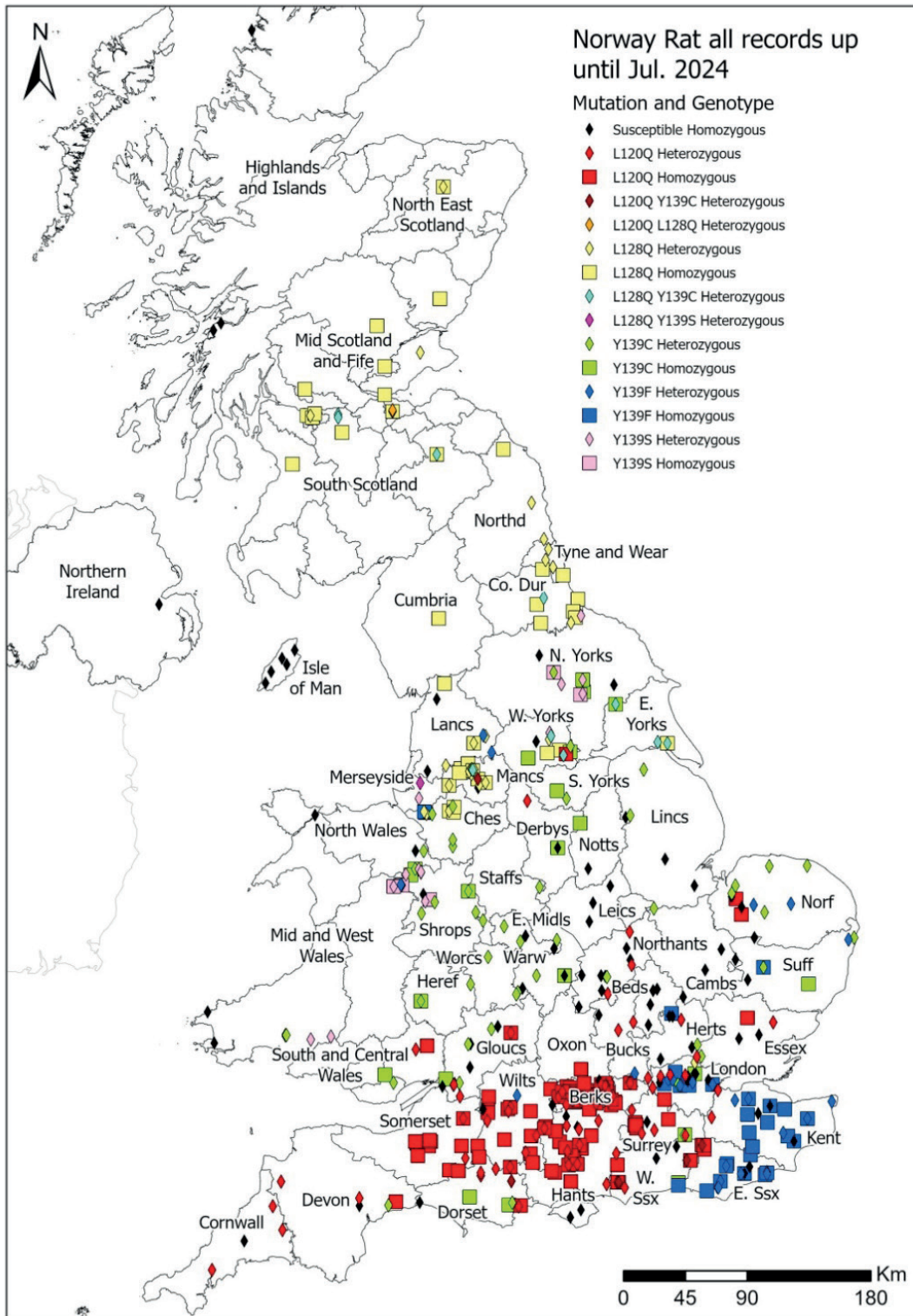




Figure 7



#### 2.6.4.4 House mice

Samples of house mouse tissue are received much less frequently than those of Norway rats and that continued to occur in our sample for 2023-24, with only six received. Various hypotheses were put forward to explain this in a previous report (Buckle et al., 2022) to which can be added another. The advice of the Rodenticide Resistance Action Group (Buckle et al., 2021a) is that practitioners should assume all house mice in the UK carry one or more resistance SNPs. This would provide a significant disincentive to submit samples if it is to be assumed that all mice are resistant. This is regrettable because information on the spread of the highly resistant hybrid Y139C/L128S mice is still very much needed.

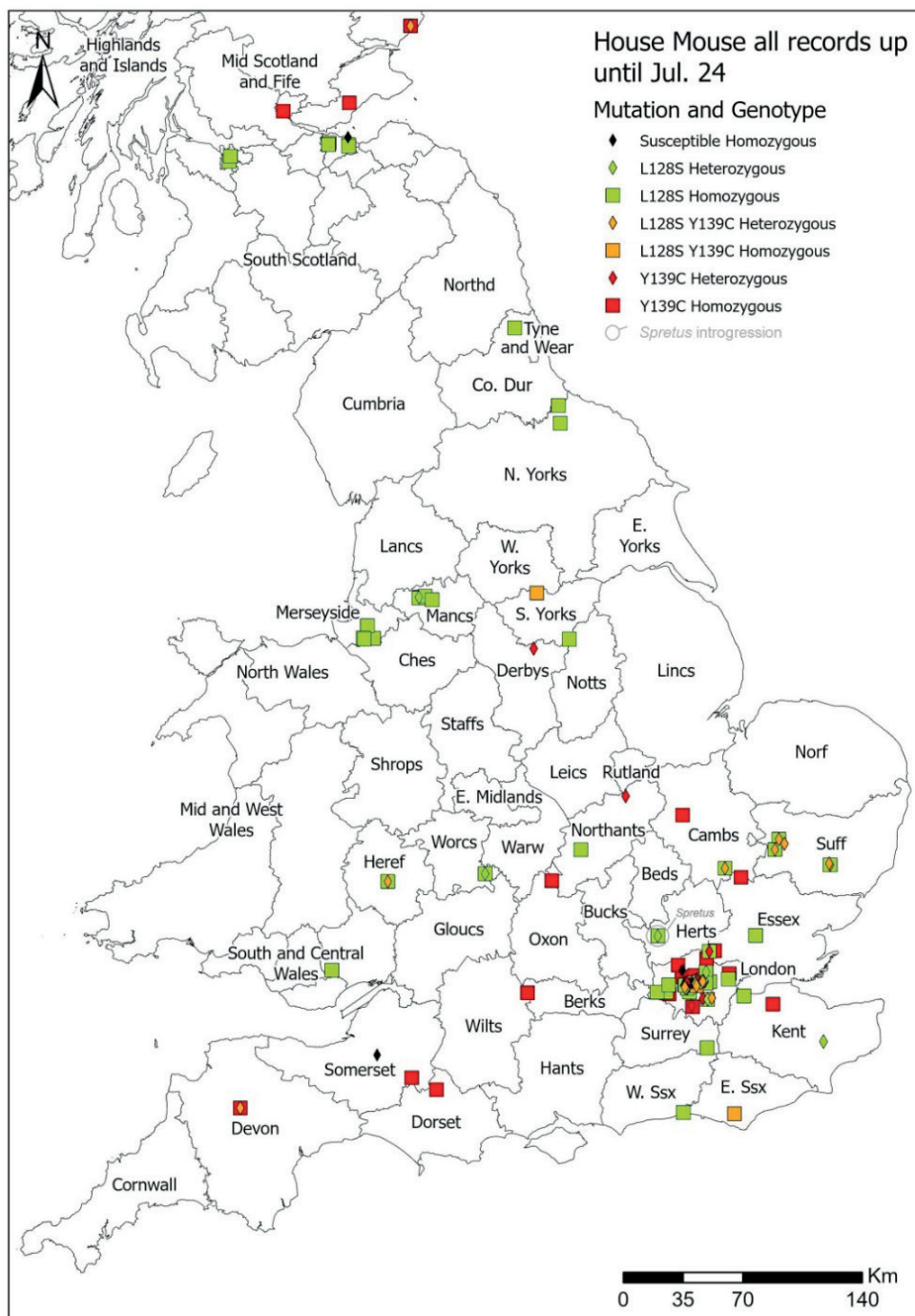
Whatever the reason for these relatively small numbers, a total of 140 mouse tissue samples has now been received, and this is one of the largest resistance surveys of house mouse resistance ever conducted. In this survey, animals

were found to carry both common UK mouse resistance SNPs, Y139C and L128S (see Table 9), with a small but significant number of mice that were hybrid resistant, carrying both mutations. These mice occur especially in London and were mentioned in more detail in the previous report, as was the newly-found *spretus* mutation (Buckle et al., 2022).

Maps of the distribution of house mouse resistance shows that the Y139C mutation is largely restricted to the south-east of England, although there have been findings of this mutation among mice in Scotland, while L128S is more ubiquitous (Figure 8). Within the total sample of 140 individuals, 132 house mice carried one or both common SNPs, giving a very high frequency of resistance among UK house mice of 94.4%. This frequency of resistance has led the Rodenticide Resistance Action Group to make the recommendation (mentioned above) that those who use anticoagulants against house mice should assume all infestations to be resistant.

Six house mouse tissue samples were received in the period August 2023 to July 2024 and among them five samples were homozygous-resistant. Three mice carried the L128S SNP in homozygous form, one each from Edinburgh, Liverpool and Dagenham in Greater London. Two house mice carried the Y139C mutation in homozygous form, both from Willesden in Greater London.

Fig. 8. Consolidated map showing all house mice found to carry an anticoagulant resistance SNP, both in homozygous and heterozygous form, for any of the three resistance mutations found in that species, and for combinations of them (i.e. hybrid resistance). Records for 2009 to 2024. (The Hertfordshire focus of the *spretus* introgression is obscured by other overlaying resistance records at the same site)



## 2.6.5 Resistance Monitoring Conclusions

### 2.6.5.1 Mutation Frequency

The continuing proliferation of the Y139C mutation in Norway rats in recent sampling periods is readily apparent and in 2023-24 the Y139C mutation was, once again, the most commonly found.

The distribution of L120Q in central-southern England is well-established and few samples are now received from the centre of the focus. This may be because this phenomenon is so well publicised, and therefore so well known, that practitioners are no longer motivated to submit samples and because active substances are used that are fully effective against L120Q rats. However, samples are still received from areas where users are probably encountering this severe resistance for the first time. Thus, in the current sampling period, tissue samples from L120Q-resistant rats were received from Exeter and Caerphilly.

Among Norway rats, the most severe resistance SNPs, L120Q, Y139C and Y139F, are particularly abundant in southern parts of England. Indeed, the most severe SNP, L120Q, is prevalent across the entire area of central-southern England. Cholecalciferol or the more potent anticoagulants should always be considered to overcome resistance and provide quick and efficient rodent management.

At the other end of the country, although sampling is much less intensive, the less severe SNPs, L128Q and Y139S appear to predominate in both northern England and Scotland. Thus, practitioners working in an area approximately north of a line joining the Humber and Mersey estuaries might expect all SGARs to be effective and the principle of the risk hierarchy (CRRU, 2024) would lead them to use mainly bromadiolone and difenacoum, although vigilance is needed because more severe SNPs are certainly increasingly present.

The regions between those two boundaries appear either to be dominated by the severe SNP, Y139C, or to harbour mainly fully susceptible Norway rats. Once again, RRAG guidance would require the use of brodifacoum, difethialone and flocoumafen among the SGAR substances. Although samples are scarce, susceptibility seems to predominate in some counties of the eastern and southern Midlands and in Lincolnshire. However, once again, vigilance is needed because there is increasing infiltration of the L120Q and Y139F SNPs in the south and east of England.

For the first time, a sample of four Norway rat tissues was available for extraction and sequencing, submitted from Belfast. All of the animals were fully anticoagulant-susceptible, and this supports previous published records of the relative lack of anticoagulant resistance on the island of Ireland (Mooney et al., 2018).

## 2.7 Communications Work Group (Leader, Alan Morris, Envu)

### 2.7.1 Purpose

CRRU's communication Work Group promotes all aspects of Stewardship in all user groups, farmers, gamekeepers and pest controllers. The team produces both CRRU specific and sector specific content and works with key publications and stakeholder groups to disseminate the message amongst professional rodenticide users.

### 2.7.2 Team composition and changes

The communication work group has been extended at the start of this year. Team members include Laurence Bernard (BASF), Gareth Capel-Williams (PelGar), Nic Blaszkowicz (PelGar & Best Practice WG Lead) and The Ad Plain / JMC.

The expansion of the team was done in preparation for a period of change which has seen CRRU member companies, voluntary withdrawal of "open area use" for professional rodenticide and will also see significant changes in the requirement for user to be able to buy professional rodenticides at point of sale. These are the key messages that need to be communicated to each sector (Professional Pest Control, Farming and Gamekeeping) to explain the different timings and the sector specific implications and impacts that these changes will have on selecting the correct appropriate methods to control infestations in these use areas.

2024 has been a year of focused change with a new agency appointed (The Ad Plain / JMC) who are now working alongside the CRRU communications work group. CRRU would like to acknowledge and thank the excellent leadership, help and support of Phil Christopher from Red Rock Services has given to CRRU over the last 15 years.

This change in agency allows CRRU to increase an already strong communication channels and enhances CRRU digital offerings (Facebook (Think Wildlife) and X (@ThinkWildLife)) to maximise our reach to all sectors.

### 2.7.3 Key focus areas

The key messaging has been centred around 2 significant decisions being implemented in 2024.



### 2.7.3.1 Voluntary withdrawal of open area use

This decision fundamentally impacts all practitioners of professional rodent control as ALL second generation anti-coagulants rodenticide (SGARs) products have been withdrawn from open area use from 4<sup>th</sup> July 2024 (Press Release - ThinkWildlife). The importance of effective communications on this topic is to ensure that all sectors are aware of these changes and fully understand what they need to (re)consider when selecting an appropriate rodent management solution to successfully control any infestation, as many of the SGAR products they currently use will be available but not for the area of use that is needed..



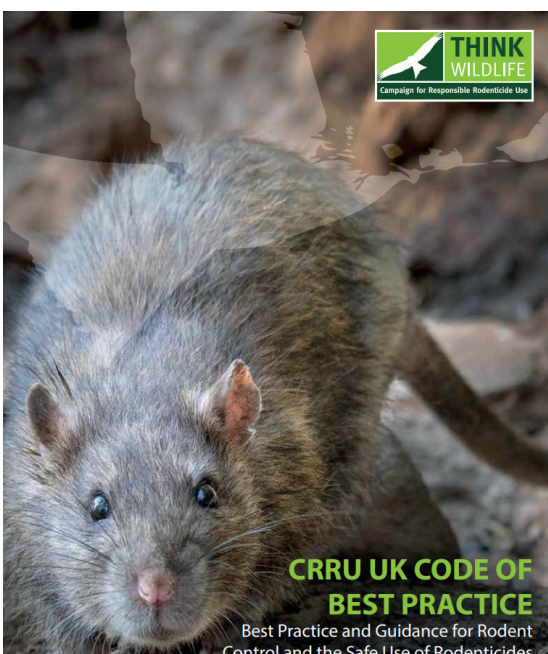
### 2.7.3.2 Training & Certification Changes from 1<sup>st</sup> January 2026

For the upcoming changes to the training and certification requirement (see “training” section) a core element of the communications group work has been engaging with stakeholders e.g. farmer assurance scheme, farmers and gamekeepers in particular, to provide the key facts (dates and actions) for this change. This will continue to be a key focus for 2025 for this group.

#### **Supporting Documentation**

To support these significant changes a revised CRRU CoBP has been released for each sector to help explain what is changing and what actions are needed for their specific area of use.

[thinkwildlife.org/download/crru-uk-code-of-best-practice-2024/?wpdmdl=18095&refresh=6720c996c79631730202006](https://thinkwildlife.org/download/crru-uk-code-of-best-practice-2024/?wpdmdl=18095&refresh=6720c996c79631730202006)





## Rat Control and Game Management



A number of press releases have been sent to approx. 453,000 end users across the different sector publications and also released on our social media channels with high levels of engagement.

### New guidance issued to professional rodenticide users

#### PRESS RELEASE

The Campaign for Responsible Rodenticide Use (CRRU) has released its latest Code of Best Practice (CoBP), reflecting forthcoming legal requirements on professional rodenticide application and supporting the safe and effective rodent pest management delivered by gamekeepers, farmers and pest control technicians.

[Download the Code](#)

## Updated Code for rodenticide users

The **Campaign for Responsible Rodenticide Use (CRRU)** has released its latest Code of Best Practice (CoBP). The new Code reflects forthcoming legal requirements for professional rodenticide application and supports safe and effective rodent pest management carried out by gamekeepers, farmers and pest control technicians.

Key revisions to the fourth edition of the document include the withdrawal of the "open area" pattern of use for second generation anti-coagulant rodenticides (SGARs). As it will be illegal to use SGARs in outdoor locations unless connected to a building from 1st January 2025, the new CoBP gives greater clarity on rodenticide use terminology and updates references to bait availability.

The CRRU CoBP offers a range of methods for successful rodent management, including elimination of harbourage, food and water and trapping. In circumstances where

rodenticide is necessary, the CoBP stresses that trained professionals must read product labels and adhere to instructions.

Nic Blaszkowicz, Best Practice Working Group leader for CRRU, said the industry-led partnership constantly considers and updates guidelines. "The main reason we are bringing these changes in, tightening up the patterns of use, is to reach the end goal of reducing rodenticide residues in non-target animals, such as barn owls," he says.

"There have been great strides with stewardship to date and people are now

much more educated, qualified and knowledgeable about responsible rodent control. That said, we are urging our user communities to come together and work harder. Familiarising yourself with strategies and methods presented in the latest CoBP is a valuable first step." ■

### More information

For more information and to download the updated handbook, visit: [thinkwildlife.org/download/crru-uk-code-of-best-practice-2024](https://thinkwildlife.org/download/crru-uk-code-of-best-practice-2024)



### 3. Conclusions & Closing Remarks

As we conclude the 8<sup>th</sup> year of Rodenticide Stewardship, the challenge to demonstrate a reduction in SGAR residues in wildlife, as measured by the residues in the sentinel species, the barn owl, remains as big as ever.

Recognising this challenge, the CRRU Directors have undertaken two additional voluntary strengthening measures to rodenticide stewardship to ensure that this target can be achieved. Implementation of these changes is well underway and on track to be implemented as planned.

The CRRU programme of activities for 2025 will require a significant amount of communication and user engagement to ensure that these changes are well understood and that all users are well placed to meet the new requirements.

The onset of Avian Influenza in the UK and the necessary precautions which have been taken to protect the public, has resulted in a much lower level of barn owl submissions to the Predatory Bird Monitoring Scheme (PBMS) since the end of Q1 2023. Because of this there will be a gap in residue monitoring data for 2023, and possibly 2024. We will continue to work closely with relevant stakeholders to ensure that this gap can be limited to 2023/24 in order that the proposed changes to Stewardship can be measured and assessed for a full year in 2025.

The number of samples received for DNA sequencing / resistance testing in 2023/24 has been disappointing. This has been partly due to the uncertainty related to a change in resistance testing partner. Once a new partner is secured CRRU aims to increase communication to users regarding the importance of rodent sample submissions, with a view to increasing sample numbers and lead to us having a better understanding of resistance across the UK, especially areas from which we have few data points at present.

The CRRU Directors, the CRRU Taskforce and the CRRU Work Groups will continue to assess ways by which Stewardship can be improved and strengthened and we look forward to working with the GOG to review and agree what measures the GOG WGs are recommending for strengthening the approach to Rodenticide Stewardship.

