Report on the rodenticide stewardship regime

2024 annual review and update on strengthening the regime

November 2026



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Introduction

The requirement for a UK rodenticide stewardship regime was launched in July 2015. At that time, HSE, on behalf of government bodies with a role in monitoring the use and impact of rodenticides, published the 'high-level principles' to ensure that the risks arising from rodenticide use are properly controlled.

In this paper

This paper sets out the broad conclusions from the Government Oversight Group (GOG)'s annual review of the operation of the Campaign for Responsible Rodenticide Use (CRRU UK) Rodenticide Stewardship Regime through 2024 to determine whether the high-level principles continue to be met.

This paper avoids duplicating the significant data and other information CRRU UK are required to collect and present to GOG annually**;** please refer to annexes 1, 1A and 2 of previous year's reports for these details**.** Information and data submitted by CRRU UK is made available on the CRRU UK website as the CRRU UK annual report (thinkwildlife.org). This assessment follows the format of earlier papers, which reflect commentary on information provided by CRRU UK and remain valid at the time of writing.

This paper also provides an update on GOG and industry's work to strengthen the CRRU UK regime.

Background

Rodenticides are biocidal products in scope of the GB Biocidal Products Regulations (GB BPR). The EU BPR (Regulation (EU) No. 528/2012) continues to apply in respect of Northern Ireland (NI). The GB and EU BPR aim to ensure that biocides can be used without causing unacceptable harm to people, the environment and non-target animals. Both regulations set requirements for the assessment and authorisation of biocides, and HSE acts as the UK Competent Authority (CA) for both GB and EU BPR (NI) and leads UK policy on biocides. More widely, pest control policy is shared between Defra and the UK's devolved governments.

All first and second-generation anti-coagulant rodenticides, and latterly rodenticide products containing cholecalciferol, fail the environmental risk assessment for their use outdoors. However, their use outdoors is necessary to control rats and mice because of the threat they present to public health, animal health and infrastructure. Rodents can pose significant risks to the safety of food supply-chains and food hygiene because they are attracted to areas where food is grown, stored, prepared and sold and because many food-borne pathogens are carried by rodents and transmitted to people and livestock.

Rodenticide stewardship continues to play an important role in HSE's authorising the use of professional rodenticide products. The government's high-level principles emphasise the importance of integrated pest management (IPM) which places the use of rodenticides within a strict hierarchy of risk controls for rodents. This means that where users adhere to good practice, professional rodenticide products will only be used where necessary, thereby minimising the risks they pose to people, non-target species and the environment.

In partnership with the sector, CRRU UK developed a regime to meet the requirements set out under the high-level principles. The CRRU UK regime remains the only scheme approved under the high-level principles. The regime covers all manufacturers and suppliers of professional use rodenticide products in the UK and is managed and coordinated by CRRU UK. In addition to the principles, government set out requirements for monitoring the regime.

CRRU UK report on the delivery and performance of their regime annually to the Government Oversight Group (GOG) for Rodenticide Stewardship which is chaired by the Health and Safety Executive (HSE) and comprises representatives of other government stakeholders: HSE NI, Defra, UK Health Security Agency, Natural England, the Welsh and Scottish Governments and independent scientific advisers (UK Centre for Ecology and Hydrology - UKCEH). GOG's role is to ensure that the CRRU UK regime meets the high-level principles to minimise exposure to people and non-target wildlife.

Earlier GOG reports have reviewed the implementation of the CRRU UK regime to assess the extent to which the high-level principles it set out, are met.

High-level principles for rodenticide stewardship

The approach to the development and operation of rodenticide stewardship is shaped by the following benefits that are expected to arise from a functional stewardship scheme:

- governance of the supply chain, ensuring that professional rodenticide products are only supplied to approved retail outlets and sold to those trained to use them as part of an IPM strategy;
- a competent workforce capable of delivering stewardship standards and of demonstrating an appropriate understanding and attitude toward case-specific control of rodents and use of rodenticides; and
- monitoring compliance with the regime and its environmental impacts and, if possible, an assessment of whether rodenticides and stewardship together are actually tackling the problems.

As the basis for delivering the key benefits a set of high-level principles were agreed and published in 2015. Those principles are:

a. Use of integrated pest management (IPM), including use of rodenticides, involving a hierarchy of risk controls for rodents.

b. Responsible use of rodenticides, when demonstrated they are needed, because of their potential threat to human, animal health and the environment.

c. Applicability to all suppliers, handlers and professional users of rodenticides in scope of stewardship, to address these risks.

d. The need for the regime to be robust, effective, and workable, while remaining as simple as possible.

e. The need for the regime to cover the whole lifecycle of the rodenticide products: manufacture, supply chain, end-use, disposal and environmental fate.

f. The enabling of good practice in the control of rodent populations, as part of an IPM system, while minimising resistance build-up and secondary poisoning in non-target species.

Annual assessment of the CRRU UK regime against the high-level principles

Overview

The annual review of the CRRU UK regime comprises 3 stages:

(i) Evidence that the industry has put in place what it said it would

(ii) Evidence / indicators of industry's response / changes of behaviour

(iii) Evidence / indicators of impact.

In relation to (i), overall, GOG considered that the key features of the CRRU UK regime continue to operate as required by the high-level principles.

In relation to (ii) GOG welcomed the information that CRRU UK provided as evidence of the regime operating as intended and the associated monitoring data. In addition, GOG noted CRRU UK's progress with improving core aspects of their regime including tightening rules on demonstrating competence among key stakeholders and in response to residues monitoring data, securing consensus among authorisation holders for HSE to further restrict where professional rodenticide products can be used and communicating these changes to users.

In relation to (iii), GOG welcomed the information provided by CRRU UK as evidence of the regime impact including oversight of supply-chains, building competence through the continued uptake of CRRU UK training provision and continuing professional development (CPD) and the ongoing provision of best practice guidelines. GOG's focus in this area remains the behaviour of those operating in the sector and the measurable effect this has on non-target species.

GOG noted that monitoring evidence continues to indicate that overall, sum residue levels have remained at the 2016 levels. At the outset of the regime, it was hoped that robust controls implemented via stewardship might lead to a statistically significant reduction in second-generation anticoagulant rodenticide (SGAR) liver residues in barn owls (Tyto alba) over time when compared to the baseline years.

Key benefits - a competent workforce

Previously GOG noted CRRU UK's efforts to raise standards and embed good practice across the sector. CRRU UK have continued to provide approved training via four awarding organisations (AOs), namely BASIS (Registration) Ltd., City and Guilds/National

Proficiency Tests Council (NPTC), Royal Society for Public Health (RSPH) and Lantra. To date AOs have awarded 45,018 CRRU UK-approved training certificates and qualifications.

Responding to earlier feedback concerning accreditation provided via Farm Assurance Schemes (FAS), CRRU UK reported that from 1 January 2026, only CRRU UK approved training and certification issued within the last 5 years or active membership of a CRRU UK approved Continuing Professional Development (CPD) scheme, will be accepted as proof of competence at point-of-sale (POS) outlets. This means that from 1 January 2026, FAS accreditation will no longer allow users to purchase professional rodenticide products. GOG also welcomed CRRU UK's plans to manage this significant transition, and the additional resources aimed at supporting pest controllers, gamekeepers and farmers available from the CRRU UK website.

The Knowledge Attitude and Practice (KAP) survey remains the main tool to monitor workforce competence. The first KAP baseline survey was completed in 2015 with follow-ups in 2017, 2020 and 2023 highlighting training effectiveness. KAP surveys, conducted on behalf of CRRU UK, indicate there has been marked improvement in the years covered by the surveys with all rodenticide user groups showing marked improvement in uptake of training, CPD, environmental awareness and product knowledge; suggesting that CRRU UK best practice advice and guidance are being understood and adopted.

GOG have previously welcomed CRRU UK's analysis of KAP data on the impact training is having on the adoption of best practice integrated approaches to pest management and whether this is leading to changes in behaviour. GOG also recognises that CRRU UK KAP surveys are significant undertakings and look forward to the outcome from the survey planned for 2026.

Key benefits - supply chain governance (proof of competence at point of sale)

CRRU UK POS controls ensure that professional rodenticide products are only sold to people who present the correct membership/accreditation information, as proof of competence. A robust system of competence checks undertaken at POS outlets is essential to the proper functioning of the stewardship regime. CRRU UK rodenticide point of sale (RPOS) audits are undertaken by independent auditors employed by BASIS to certify compliance for each POS outlet. CRRU UK members have committed to only supplying their products to outlets that are certified as compliant by BASIS. CRRU UK's independent audit process grades outlets' performance against the required standard, identifying outlets that have met the required standard and those where remedial improvement and follow-up is needed.

The results for 2024 show an increase in compliance. Of 654 outlets audited, 92.8% passed their audit, 5% require remedial improvement and 1.7% of outlets failed to meet the required standard. Several outlets have withdrawn from the audit process meaning

they can no longer sell professional rodenticide products. Overall, the results from the audit are broadly consistent with previous years.

Responding to earlier feedback identifying the need for a clearer link between identifying poor performance and corresponding actions, CRRU UK confirmed that where poor performance is identified but not rectified, POS outlets will be prevented from selling professional rodenticide products. Remedial action includes ensuring that professional products are not re-supplied until a new audit has been undertaken and passed. Newly registered POS outlets are not supplied with professional rodenticide until they have been audited.

Alongside fulfilling CRRU UK responsibilities for supply chain governance, POS restrictions also drive demand for the take-up of CRRU UK accredited training and best practice, because only appropriately competent personnel, accredited under the CRRU UK regime can purchase professional rodenticides.

Looking ahead, CRRU UK will utilise BASIS auditors to ensure that POS outlets and their customers are aware of the changes to demonstrating competence that will come into force at the beginning of 2026. The removal of FAS membership from the CRRU UK approved accreditation list will mean that POS restrictions will either increase demand for the take-up of CRRU UK accredited training or encourage further reliance on trained professionals to undertake rodent control operations.

Key benefits - residues monitoring and evaluation

Residues

The highly pathogenic avian influenza (HPAI) outbreak continues to impact residues monitoring. Submissions to the UKCEH predatory bird monitoring scheme (PBMS) remain suspended as part of safeguarding procedures. This has meant that data normally collected from the analysis of dead birds submitted to the scheme was unavailable to support UKCEH reports for 2023 and 2024.

The latest monitoring data and analysis are set out in UKCEH’s 2022 PBMS reports which, consistent with data collected during the review period (2016-2019), has concluded that there were few differences in liver SGAR accumulation between the baseline years and in 2019. Overall, the sum of all residues had remained unchanged over the monitoring period for both red kites and barn owls. However, the latest report has identified changes in the ratios of individual active substances, noting a reduction in difenacoum and bromadiolone and increase in brodifacoum. Submissions to the scheme will recommence when it is safe to do so. GOG thanked UKCEH for their update.

Rodent resistance to SGARs

Resistance monitoring is a key requirement for the delivery of the CRRU UK regime. Resistance to anticoagulant rodenticides is widespread in the UK among both house mice

and Norway rats. Resistance to rodenticides happens when mutations known as single nucleotide polymorphisms (SNPs) occur. There are at least five resistance mutations in Norway rats and at least two in house mice that are known to reduce their susceptibility to some SGARs.

The provision of information on the geographical distribution of SNPs is important for the conduct of rodent control operations. Where users are aware of resistant rat and mice populations, they can ensure that only the most effective SGAR is chosen, using the smallest amount of bait, to control infestations. Resistance data collected by CRRU UK is shared with the international Rodenticide Resistance Action Committee (RRAC). RRAC makes interactive maps available to users enabling them to check the status of resistance in their locality and obtain information about effective interventions.

CRRU UK reported that of the 47 Norway rat tissue samples sequenced in the period August 2023 to July 2024, 48.9% were found to carry one of the five main SNPs. These results differed from previous surveys which identified significantly higher proportions of resistant Norway rats (i.e. 2020, 74.1%; 2021-2022, 74.1%). GOG noted the possible reasons that may underpin the different outcome, including sampling bias rather than a decrease in the incidence of resistance among UK Norway rats.

CRRU UK will continue to encourage the submission of samples, especially in under reported locations throughout the UK, and delivery of effective testing arrangements as they transition to a new testing partner for this service.

Conclusion

GOG remains content that the CRRU UK regime continues to meet the high-level principles and requirements for stewardship. GOG reflected the importance of ongoing work to understand the lack of decline in residues over the post-stewardship period. It will also be important to understand the changes in the ratio of SGAR residues present in submitted carcasses, specifically the relative increase in the ratio of brodifacoum residues when compared to other SGAR residues detected.

GOG also noted the further measures taken to reduce secondary exposure risks arising from rodenticide use. This includes the implementation of new training standards and removing remaining outdoor open area uses, meaning that SGARs can no longer be used in this way. GOG will continue to work with CRRU UK to strengthen the regime.

Strengthening stewardship – review progress

GOG will continue to work with CRRU UK to strengthen the stewardship regime. The areas identified as requiring specific focus were:

(i) revisiting the data from the current monitoring arrangements,

(ii) revisiting the benefits and impact provided by key controls such as the operation of point-of-sale controls, and

(iii) supporting CRRU UK efforts to further embed best practice among key user groups.

In respect of revisiting monitoring data, the review team is focussing on broadening the scope of monitoring data by formally revisiting the monitoring and assurance arrangements underpinning the CRRU UK regime. As part of their work the team have considered a range of additional species for the purposes of residues monitoring. This work includes developing criteria for assessing data availability and suitability. The data would also need to support comparison between pre and post stewardship data sets. In addition to the barn owl, seven species were found to be suitable: red kite, buzzard, sparrow hawk, peregrine falcon, red fox, hedgehog, and otter. Work continues to collate and analyse data from across the UK from 2001-2022.

In respect of improving the operation of point-of-sale controls, the review team is focussing on POS controls and their consistent application across all aspects of the supply chain and exploring the potential for user-type data to be routinely collected from audit activities. This work also includes identifying data that will provide further insight to residues monitoring. Here, using arrangements under GB BPR, HSE has asked CRRU UK members to provide information on the quantity of SGAR active substances and formulation types entering UK supply chains. It is hoped that this information will assist in understanding the volumes and patterns of professional rodenticide products used and the residues observed in non-target wildlife.

In respect of embedding best practice among user groups, the review team is focussing on how to support the implementation of new training standards for the farming/gamekeeping sector necessary for those who wish to continue to purchase and use professional rodenticide products. This includes working with training suppliers to promote and manage training course uptake, planned communications, continuing to offer and develop CPD solutions to trained users and updating and promoting the CRRU UK Code of Best Practice.

Alongside the specific areas of focus that emerged from the review, an additional review team is taking forward work to assess and understand the ‘key drivers of resistance’. The team has been asked to consider what further controls and regulatory interventions would act to manage and slow the spread of resistance to SGARs in the UK. The team is exploring a range of issues including improvements to the information provided directly to users to support efforts to manage infestations of SGAR-resistant rodent populations. The team is also exploring how to increase submission of tissue samples for analysis of single nucleotide polymorphisms associated with resistance.

GOG will meet to consider final proposals from all review teams to discuss and formally agree recommendations in June 2025. The next steps will be to discuss these recommendations with CRRU UK as part of agreeing steps to adopt and embed the changes into the CRRU UK regime.

Further information

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