Comments provided by: Campaign for Responsible Rodenticide Use Ireland

General information

The Campaign for Responsible Rodenticide Use Ireland (CRRU Ireland) was formed following prompting by the the Pesticide Registration and Control Divisions (PRCD) of the Department of Agriculture, Food and the Marine (DAFM) the Competent Authority responsible for the regulation of biocidal products. It was formed by nine companies that manufacture and distribute rodenticide products in Ireland.

CRRU Ireland aims to protect wildlife while promoting and providing effective rodent control through the responsible use of rodenticides, using risk mitigation measures to minimise exposure of non-target species.

The CRRU Ireland work programme is developed by a Task-Force consisting of members drawn from relevant stakeholders: -

- BirdWatch Ireland,
- Countryside Alliance Ireland (CAI),
- Environmental Protection Agency (EPA),
- Department of Agriculture, Food and the Marine (DAFM),
- Federation of Agrochemical Retail Merchants (FARM),
- Food Safety Authority of Ireland (FSAI),
- Golden Eagle Trust Ltd.,
- Irish Agricultural Supply Industry Standards Ltd., (IASIS),
- Irish Farmers Association (IFA),
- Irish Pest Control Association (IPCA),
- National Parks and Wildlife Service (NPWS),
- National Pest Control Association (NPTA) - Irish Branch,
- Quercus, Queens University Belfast (QUB),
- TEAGASC,
- Ulster Wildlife,

in addition to representatives of the nine companies that fund its work.

CRRU Ireland accepts that the physical chemical properties, toxicological profile and ecotoxicological of anticoagulant rodenticides are such that they fulfil the criteria provided for in Article 10 of Regulation (EU) No 528/2012 . That being the case the material provided hereunder in the context of the consultation process, is intended to facilitate adoption of an appropriate and balanced approach by the Member States in conducting comparative assessments of rodenticide products in accordance with Article 23 of that Regulation.

Alternative Identity and Properties
CRRU Ireland cites the position paper prepared by the EBPF – European Biocidal Products Forum , in providing its response, an extract from which follows:
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'A comprehensive report from independent experts (Risk Mitigation Measures for Anticoagulant Rodenticides as Biocidal Products (RMM)), commissioned by DG Environment, has been published 'with the aim of identifying the best practice available and whenever possible to define a harmonised strategy at the EU level' which 'will certainly contribute to the responsible and sustainable use of anticoagulants rodenticides, reducing the risks posed to human health, animal health and the environment by these products.' The independent RMM report identifies the features of an ideal rodenticide and then concludes that 'It will be difficult to find a rodenticide that can meet more of the above features than the anticoagulant rodenticides' and also that 'alternatives to AVKs are limited today.'
Although there are a number of alternative chemical rodenticides approved under the BPR, none offer the utility and efficacy provided by the AVKs as acknowledged by the experts in the RMM report.

These are described below:
Alphachloralose
This substance is only used for mouse control indoors and is not approved for the control of rats.
Aluminium phosphide
This fumigant is used only by specially-trained professional pest control technicians. It cannot be used in proximity to buildings because it works by the evolution of a toxic gas which cannot be fully controlled when it has been produced. Although valuable in some circumstances, this property makes aluminium phosphide inappropriate for most rodent control situations in the built environment.
Hydrogen cyanide
Like the previous active substance, this is used only by specially-trained and equipped professionals as a fumigant in hermetically-closed structures.
Carbon dioxide
Once again, this substance is currently restricted for use only against mice indoors. It is dispensed using a special automatic application device which is appropriate only in limited practical use situations.
Powdered corn cob
In comparison with other PT 14 active substances, powdered corn is relatively new to the market. Practical experience of its use is limited and information from published literature on its efficacy is scarce.

Technical Feasibility
CRRU Ireland cites the position paper prepared by the EBPF – European Biocidal Products Forum, in providing its response, an extract from which follows:

Having regard to the limitations referred to at point 1 and reproduced therein, and ..
'As a result of these limitations, the vast majority of rodent control operations in the EU are conducted using the anticoagulant rodenticides, and will be so for the foreseeable future. The anticoagulants are widely used because they are generally efficacious, practical in use and, in comparison with the acute rodenticides that preceded them, have valuable safety characteristics.

There are some alternative techniques to anticoagulant rodenticides for the management of rodent infestations, although none of these are considered to be as cost-effective and efficient as the use of an efficacious rodenticide. These alternatives fall into two broad categories; those aimed at killing rodents (e.g. traps, glue-/sticky-boards) and those that aim to restrict either their population size (habitat modification) or access of populations to vulnerable areas (repellents and proofing/exclusion). They provide useful complementary techniques to the use of anticoagulant rodenticides for controlling rodents but are not considered to be replacements for them.

Rodent Trapping

Traps, either spring traps or break-back traps, designed to capture and kill rodents are useful in some circumstances. However, their effective and humane use requires a high degree of skill and when necessary they should be set in tunnels to avoid adverse impacts on non-target wildlife, pets and children. They may not kill cleanly and therefore should be checked daily so that animals captured, but not killed, may be humanely despatched. Such traps may be effective in situations where infestations are small but are unlikely to be cost effective against large and dispersed rodent infestations. Live-capture traps have the advantage that, if they are checked frequently, captured non-target animals can be released unharmed. Some authorities recommend that these traps are checked twice daily. Captured target animals must be despatched humanely, because in some Member States it is illegal to translocate and release them. Once again, these traps may provide effective control of small infestations, particularly of mice.

Glue Boards

Glue- or sticky-boards are available in some countries but are illegal in other countries. They may provide effective control in some circumstances. Like traps, they may capture non-target animals and birds and must be checked at least twice daily. Untrained users of glue-traps are unlikely to know how to despatch humanely the rodents caught on the adhesive surface.

Habitat modification

Rodents require food, harbourage and, in the case of rats, water in order to establish troublesome infestations. Such infestations will either not establish at all, or will be limited in size, if any of these requirements is denied. Habitat modification alone will not control an existing infestation and may move an infestation elsewhere. It is often used as a preventative measure when control has been achieved using a chemical control method.

Repellents

There are currently no chemical repellents for rodent control approved under the Biocidal Products regulation. It is considered that there is no convincing scientific evidence to indicate that ultra sound and electromagnetic devices are effective.

Rodent Proofing

Preventing the access of rodents to vulnerable buildings by proofing is an important requirement in sustainable rodent control but it will not control an existing infestation. Proofing is particularly difficult to implement and maintain in respect of house mouse infestations.

In conclusion, very little has changed since February 2010 – when the last AVKs were included in Annex I of the Biocidal Products Directive – and July 2015 – the date of their renewal submissions under the BPR. The conclusions of the original assessments remain valid, and the continued lack of credible alternative active substances to control rodent pests and protect public health means that the AVKs continue to be essential for efficient and effective rodent control, as recognised by the experts in the RMM report.'
Note: The use of glue-or sticky-boards is prohibited in Ireland, because of animal welfare concerns!

CRRU Ireland has developed a document entitled 'Best Practice Requirements for Rodent Control and Safe Use of Rodenticides'. It the near future, the labels of authorized rodenticide products will require use in accordance with those requirements.
The following approach to rodent pest management is promoted by CRRU Ireland –
'Much can be done prior to the establishment of rodent infestations to make their occurrence less likely. If precautionary measures such as proofing and hygiene, discussed in the previous sections, are rigorously implemented rodent infestations will be infrequent, small and easy to deal with when they do occur. Small infestations of rats and mice can often be removed using physical means, such as traps. Small infestations of mice are particularly amenable to this approach. However, sometimes rodent infestations become established and require the application of rodenticides. The choice of rodenticide to use should be made after consideration of the 'risk hierarchy', having completed a thorough inspection of the site to be treated and after the performance of necessary risk assessments.'

'It should be noted that killing rodents can only provide short-term control of populations. Sustainable control can only be achieved by reducing the rodent carrying capacity of the environment.

There is concern that resistance to rodenticides in some areas of the country may exist. Professional users should be alert to this phenomenon and be prepared to adjust their control strategy if anticoagulant resistance is suspected.'

'The recognition of resistance is not easy or straight forward. If all baits have been cleared and no bodies are found, this may indicate a resistance problem, but under baiting can produce the same effect. At first, when all the bait has been cleared, the amount of bait placed at each location should be doubled or tripled and be followed up within a week. If there is resistance then after a week all the bait will again be cleared and there will still be no bodies. Concern should be raised if all the bait is cleared and the amount of bait consumed seems out of proportion with other evidence, such as droppings and smear marks.

Food will pass through a rodent's gut in a few hours whereas an anticoagulant will take several days to kill the rodent. Coloured droppings indicate that the rodent has eaten the rodenticide. However, if coloured droppings continue to be found beyond the normal period expected to gain control, no bodies are found, and the area has been baited in proportion to the level of infestation, such findings could be an indicator of resistance.
Under-baiting - If insufficient amounts of anticoagulant baits are used such that the rodent population can clear all the bait overnight and then there is no follow-up for 2 or 3 weeks, the rodents will have metabolised the rodenticide without having consumed a

toxic dose. Rodents must feed on anticoagulant bait several times over a few days to consume a dose that elicits a toxic response.

In dealing with mouse infestations it is important to remember that mice feed little and often. Therefore extra bait boxes must be placed to kill them - under baiting encourages the development of resistance as only particularly susceptible individuals will be killed.'
DNA Testing – The genetic basis for rodent pest resistance to anticoagulant rodenticides has been mapped. It has been established that resistance to anticoagulant baits by Norway rats and house mice occurs at many European locations. Genetic testing is the best available means to prove that a particular population has such resistance. A survey to establish the extent and distribution of anti-coagulant rodenticide resistance in Norway rats and house mice in Ireland is being undertaken. Resistance to anticoagulants has been confirmed in many rat populations in England, Scotland and Wales. There is confirmed resistance in Norway rats to the available first-generation anticoagulants warfarin, chlorophacinone and coumatetralyl and, in some areas, to the second-generation anticoagulants bromadiolone and difenacoum.

Economic Feasibility
CRRU Ireland cites the position paper prepared by the EBPF – European Biocidal Products Forum, in providing its response, an extract from which follows: -
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Hazards and Risks of the Alternative
No comments are provided reflecting the fact that there are no effective alternatives to the use of anticoagulant rodenticides.

Availability
No comments are provided reflecting the fact that there are no effective alternatives to the use of anticoagulant rodenticides.

Conclusion on suitability and availability of the alternative
No comments are provided reflecting the fact that there are no effective alternatives to the use of anticoagulant rodenticides.

Other Comments

For the purpose of facilitating the development of alternatives to anticoagulant rodenticides, a specific EU research budget should be created and used to promote research to identify safe and effective alternatives to anticoagulant rodenticides for control of rodent pests..

References

CRRU Ireland Best Practice Requirements for Rodent Control and Safe Use of rodenticides (in press) (will become available for download from the CRRU Ireland website www.CRRU.ie in March 2016)

EBPF –European Biocidal Products Forum Position Paper, 29 January 2016, Justification for the renewal of the approvals for the anticoagulant rodenticides brodifacoum, bromadiolone, chlorophacinone, coumatetralyl, difenacoum, difethialone, flocoumafen and warfarin http://www.cefic.org/About-us/How-Cefic-is-organised/Fine-Speciality-and-Consumer-Chemicals/European-Biocidal-Products-Forum-EBPF/

Risk Mitigation Measures for Anticoagulant Rodenticides as Biocidal Products (RMM) https://circabc.europa.eu/w/browse/d66ad096-37a1-4903-a3e0-24607ca3f3ea