



Chartered
Institute of
Environmental
Health

The Biocidal Products Regulations 2001: Authorisation of rodenticide bait products – consultation on risk mitigation measures

Response to the Chemicals Regulation Directorate
consultation document on the human health risk
mitigation measures for anticoagulant rodenticide baits

May 2011

The Chartered Institute of Environmental Health

As a **professional body**, we set standards and accredit courses and qualifications for the education of our professional members and other environmental health practitioners.

As a **knowledge centre**, we provide information, evidence and policy advice to local and national government, environmental and public health practitioners, industry and other stakeholders. We publish books and magazines; run educational events and commission research.

As an **awarding body**, we provide qualifications, events, and trainer and candidate support materials on topics relevant to health, wellbeing and safety to develop workplace skills and best practice in volunteers, employees, business managers and business owners.

As a **campaigning organisation**, we work to push environmental health further up the public agenda and to promote improvements in environmental and public health policy.

We are a **registered charity** with over 10,500 members across England, Wales and Northern Ireland.

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Our interest in this consultation

- 1.1 The Chartered Institute of Environmental Health (CIEH) is a non-governmental organisation and professional, awarding and campaigning body at the forefront of environmental and public health and safety. Based in London, it is the professional body for environmental health professionals in England, Wales and Northern Ireland.
- 1.2 In 2001, the CIEH set up a specialist pest management panel, the National Pest Advisory Panel (NPAP) whose members are chosen for their individual expertise. They include pest controllers who are working or have worked for local authority pest control departments or commercial companies, consultants, academics and researchers.
- 1.3 The remit of the NPAP is to provide the CIEH with advice on all matters relevant to the control of urban and rural pests. This has included carrying out surveys; issuing a number of important guidance documents relating to the responsible use of public health pest management products; organising seminars and presentations; and providing expert speakers at national and international meetings.
- 1.4 The CIEH also worked with the World Health Organization on the publication of *Public Health Significance of Urban Pests* in 2008 and in 2009 jointly organized, with the US Environmental Protection Agency, the first International Public Health Pesticides Workshop in London.
- 1.5 This response is made based on discussions within the NPAP.

General comments on the consultation

2. Access to pesticides

- 2.1 The CIEH believes that it is essential that insecticides and rodenticides are available for both professional and amateur use. However, there must be a clear legal distinction between the sale, supply and use of professional products and those approved for sale to and use by amateurs if the difference is to have any meaning and there is to be effective regulation.
- 2.2 Under the Control of Pesticides Regulations 1986 and 1997 (as amended) it is an offence for a professional use only pesticide to be used by someone who is not a professional user. HSE defines a professional user as someone who is trained and competent to carry out the work they are called on to do and uses the product as part of their work.

However, the consents under COPR do not make it an offence for a pesticide manufacturer or distributor to sell or supply a professional use only pesticide to an unqualified purchaser and there is no existing regime which actively monitors the use of professional use only pesticides to ensure that they are not used illegally by amateurs.

As a result, professional use only pesticides are regularly being offered for sale to amateurs at country fairs, on the internet and through other means such as e-bay. Anecdotal evidence from professional pest controllers indicates too many instances

where rodenticide baits, including those based on active substances that are only approved for indoor use, are regularly put down unprotected and in the open by amateurs contrary to their approvals.

The CIEH has a considerable concern about this, especially as the current trend for local authorities to charge for or outsource their traditional pest control services will mean that more and more householders will purchase products in order to carry out DIY treatments.

This will not only lead to greater misuse and abuse of the pesticides, as well as ineffective treatments, but also will lead to greater resistance to the active substances developing in rodent populations.

Work by Salford University and Manchester City Council¹ found that amateur users often adulterated the rodenticides they had purchased, believing that it would make them more palatable.

This study also found that amateur users believed that it was good practice to keep rodenticides topped up so that there would be bait available at all times. Such ineffective treatments are likely to increase resistance, leading to the need to use more rodenticide in the environment.

- 2.3 Bullet point 5 on page one states that *"primary as well as secondary exposure of humans, non-target animals and the environment are minimised, by considering and applying all appropriate and available risk mitigation measures. These include, amongst others, the restriction to professional use only....."*

In the opinion of the CIEH, this can only be achieved if the sale and supply to, as well as the use of professional use only pesticides by, unqualified persons is made illegal and an effective enforcement regime is introduced.

- 2.4 This increase in misuse and abuse is particularly important in the case of second generation anticoagulant rodenticides because of their toxicity to humans and non-target species.
- 2.5 We would also point out that Member States have consistently failed to agree an EU definition of a 'professional user' under the BPD. This lack of consistency in what constitutes a professional user will inevitably cause problems in future, especially if Union authorisations are given.

3. Anticoagulant rodenticides under BPD

- 3.1 There are actually nine anticoagulant rodenticides that have been approved for listing on Annex 1. Warfarin (2010/11/EU) and warfarin sodium (2010/8/EU) have been treated separately under the BPD.

4. Classification of public health threats from rodents

- 4.1 The CIEH agrees that anticoagulant rodenticides will continue to be the main chemical weapon in the pest controllers' armoury and that there needs to be a transparent and consistent approach to the authorisation of anticoagulant rodenticide products.

- 4.2 However, the traditional classification that rats are a public health pest and mice are a nuisance pest is dangerously wrong. Mice can be infected with a number of diseases including salmonellosis, cryptosporidium and toxoplasmosis, as well as fleas, and because they are often found living within dwellings, they may actually have closer contact with residents than rats.

Recent research carried out at Salford University found that 58.5% of the mice caught and tested were infected with *Toxoplasma gondii*, the parasite that causes toxoplasmosis (Murphy et al 2008²). The WHO publication "Public Health Significance of Urban Pests" (Bonney et al, 2008³) also makes it clear that research indicates that mice are a public health pest.

The CIEH regrets that too often only the danger to health from pesticides is recognised, while the hazard to health from the pests is not. It believes that mice must be recognised as a serious public health threat.

5. Bait stations, covered bait points and efficacy

- 5.1 The CIEH agrees that rodenticides should be placed in covered or protected bait points, or in commercially available tamper-resistant bait stations. However, the CIEH points out that hole or burrow baiting, where loose bait is applied directly into holes or burrows, can give the best results in encouraging bait uptake, resulting in quicker control.
- 5.2 A report commissioned by NPAP (Quy 2010⁴) and outlining the research into the effect of the use of commercially available bait stations carried out at FERA, agrees with the findings of the recent study (Buckle and Prescott⁵) that the use of commercially available bait stations will, in practice, prolong the time taken to establish control over an infestation.
- 5.3 The CIEH is against the mandatory use of rodenticides only in tamper-resistant bait stations. Instead, it would argue that professional pest controllers should be allowed to choose the method of placing baits that is most likely to achieve control in the shortest possible time. A professional and competent pest control operative should, by definition, be in a position to ensure effective control without risking non-target species.

6. Professional and non-professional use of rodenticides

- 6.1 The CIEH agrees that non-professional users are less likely to interpret safety instructions on packaging correctly. They are also less likely to understand how to use the products to optimum effect.

For example, work carried out by Salford University and the City of Manchester pest control department has shown that to control rodent infestations effectively requires a block treatment programme. If some householders in the block treat their individual dwellings in isolation, the rodents in neighbouring properties that have not encountered the rodenticide will soon invade and infest those properties and the householder will buy more and more bait, but never achieve control. As the infestation continues those residents that are purchasing baits may use it in ways

that are not specified on the label. Thus relying on individual DIY action is not likely to lead to effective control of infestations.

There is also evidence that residents may be tempted to use more inhumane methods such as glue boards to trap mice.

The CIEH believes that a public education programme should be undertaken to make householders aware of the safety and efficacy measures needed to achieve correct rodent control.

The World Health Organization recommended this approach in 2008 (Bonney et al, 2008). It specifically stated:

Public information and education are fundamental to efficient and successful pest management, with respect to both preventive and control measures. Most people are unaware how their habits, their behaviour and changes in their homes can attract commensal pests and provide ideal living conditions for these pests to thrive. They are also largely unaware that pests may carry pathogens and that simple personal measures can be taken to avoid contact with pests. Moreover, they are largely unaware of how to handle pesticides.

Thus, public information is not only a basic need, but it is also economically sound, because it contributes considerably to preventing pest infestations through private action. The following measure may help improve this situation.

Information should be developed for the public, to raise its awareness of how to protect itself through simple sanitary and behavioural measures. Such information should also familiarize them with how to best store and use pesticides, which would also minimize the risks associated with their storage and use.

6.2 The CIEH would be happy to work with CRD to produce and promote such educational material.

7. Effects of the Sustainable Use of Pesticides Directive

7.1 Rodenticides are one of the few types of pesticides which require approval under both the Plant Protection Products Directive and the Biocidal Products Directive, according to their use.

The Sustainable Use of Pesticides Directive (SUD) requires Member States to introduce “necessary measures” to restrict the sale of professional products to those users who hold an appropriate certificate.

The CIEH notes the HSE view that *“Professional products should never be used by the untrained amateur gardener, even if the area to be treated is an allotment or large garden area. There are industry initiatives in place to ensure that pesticides for professional use are only sold to qualified users, but the current law does not prevent a product for professional use being sold to an untrained user. Therefore the Government welcomes this requirement in the Directive, not only because it restricts the purchase of products to trained persons, thereby reducing the likelihood of incidents of bad practice, but also because it introduces an element of accountability by the user and assists in traceability during investigations”.*

The CIEH notes that there is currently no specific certificate approved by ministers for sellers of rodenticides under the PPPD. This needs to be addressed.

- 7.2 Under the requirements of the SUD, it will also be necessary for instructions for the safe use by amateurs of agricultural pesticides (i.e. those approved under the Plant Protection Products Directive (PPPD) such as rodenticides used in horticulture in and around greenhouses) to be available at the point of sale. Although some agricultural pesticides are covered, there is inadequate information on rodenticides, which needs addressing.
- 7.3 The CIEH recommends that these requirements are extended to rodenticide sales under the BPD as well since it makes no sense for the same product formulations to be subject to different rules.

8. Bait pack sizes

- 8.1 It is noted that the "UK view is that a bait pack for sale to non-professionals should be of a size appropriate for controlling a single rodent infestation".
- 8.2 The CIEH believes that it is necessary for amateurs to have access to rodenticides but believes that this access must be limited through pack sizes and the form in which the product is supplied.
- 8.3 The CIEH would agree that a bait pack for sale to non-professionals should be sufficient to treat a single infestation of rodents.

9. Risks of human poisoning from secondary exposure

- 9.1 The CIEH is concerned that non-professionals have access to bait containing the more potent active substances, namely brodifacoum, flocoumafen and difethialone.

This is not because the CIEH believes that the more potent active substances pose a greater risk to human health than other anticoagulants but because domestic animals and wild birds will be put at greater risk when rodenticides based on these active substances are misused in gardens or open spaces by amateurs.

However, discussion within NPAP has focussed on the increasing problems in controlling rodents caused by resistance to difenacoum and bromadiolone and the need for access to the more potent rodenticides where resistance is preventing control from being achieved.

The CIEH accepts that amateurs will need access to the more potent rodenticides when controlling resistant mice but questions whether they should have the same access for the control of rats. This is because of the quantity of bait needed to control resistant rats; the question whether should untrained non-professionals be trying to control resistant rat populations; and the fact that small infestations of resistant rats may be better controlled by break back traps.

The CIEH recommends that baits containing the more potent active substances are restricted for rat control to products for professional use only and those for mice are

only available in non-refillable bait stations which do not allow access to birds or non-target animals.

- 9.2 The CIEH would be concerned should the addition of aromas (e.g. vanilla, chocolate and hazelnut) increases the chance of accidental ingestion by children. It recommends therefore that formulations containing aromas be restricted to "professional use only" products. This is because only professionals will be trained to use them in appropriate situations.
- 9.3 The CIEH supports the requirement that unused bait should be collected at the end of a treatment. However, this may be problematic when recovering bait from domestic properties. Many occupiers may consider that they have paid for the bait as part of the treatment and may insist on keeping it.

10. Permanent versus programmed baiting

- 10.1 The CIEH believes that permanent baiting is not the correct rodent treatment in many cases. It can result in increased secondary poisoning of non-target species and resistance developing in rodent populations. It can also prevent other control measures, such as changes to the environment, being implemented,

In line with their environmental responsibility, the pest control industry is committed to the development of products and techniques that reduce the impact of pest control activities on the environment. It is therefore important, where possible, to reduce the availability of these compounds where there is a risk to children or non-target species.

Nonetheless, there may be occasions when permanent baiting is unavoidable because there is a continuous threat of infestations from uncontrolled rodent populations on adjacent property. An example of this would be where a break in a sewer system was creating a rat infestation in neighboring property; permanent baiting may be necessary until the sewer is repaired

However, there is an obligation to minimize the threat of primary and secondary poisoning of non-target species. Permanent baiting should therefore only be allowed where it is unavoidable.

- 10.2 The CIEH agrees that the future strategy for outside rat control should be by a system of programmed baiting and more integrated pest management instead of permanent baiting.

The first consideration for the control of outdoor rat infestation should no longer be the automatic installation of tamper resistant bait stations around buildings. Permanent baiting neither takes account of the actual source of the infestation nor attempts to identify the quickest means of controlling the problem.

Improved training, management and discipline are required to provide a knowledgeable and professional approach to rat control outdoors. For example, rodent baiting should be carried out where the rodents are most likely to be found i.e. in shrubberies and wasteland surrounding buildings, which can be determined by a thorough inspection.

- 10.3 Unfortunately, auditors inspecting many food firms require permanent baiting points to be visible during their audit. As a result many bait stations are placed around the outside of buildings for the benefit of the auditors. If the stations are not visible, pest controllers face the prospect of having an adverse report, which affects their relationship with their customer.

Any move to restrict the use of permanent baiting will need to be accompanied by an education programme for specifiers and auditors within the food and other sensitive industries.

- 10.4 The CIEH also believes that the use of bait by gamekeepers will also need to be reviewed, since the laying of significant quantities of bait in hedgerows is also problematic and needs to be addressed.

It is suggested that it should only be allowable for bait to be laid in hedgerows if it can be shown that non-target species are adequately protected.

11. Risk mitigation options

- 11.1 The CIEH welcomes the opportunity to comment on the options set out.

- 11.2 Although the present consultation is based on public health concerns and not concerns about non-target species and the environment, it is difficult to separate the label restrictions applicable to one from the other. The CIEH recommendations therefore apply to both.

- 11.3 The CIEH recommends that:

- 11.3.1 Professional use only baits permitted to be supplied as loose bait, paste baits or in blocks for use in bait stations, covered bait points or uncovered locations inaccessible to bystanders. Baits such as grain/granular/pellet baits to be supplied loose in packs with scoops/measuring devices for filling rat or mouse bait points.

Active substances to be any anticoagulant rodenticide allowed under the BPD. In view of increasing resistance problems with difenacoum and bromadiolone, the use of brodifacoum, flocoumafen and difethialone should be permitted in and around buildings where resistance is proven.

Pack sizes up to 25 kilos.

- 11.3.2 Amateur baits to be supplied as paste or blocks and used in factory-filled (non-refillable) secure bait stations.

Active substances for mouse control to be any anticoagulant rodenticide allowed under the BPD, including brodifacoum, flocoumafen and difethialone.

Active substances for rat control to be any anticoagulant rodenticide allowed under the BPD, except brodifacoum, flocoumafen and difethialone.

Pack sizes to be limited to the amount of bait required to treat a single infestation of rodents.

References

¹ Murphy et al. (2008) The urban house mouse (*Mus domesticus*) as a reservoir of infection for the human parasite *Toxoplasma gondii*: an unrecognised public health issue? *International Journal of Environmental Health Research* **18** (3) 177 – 185

² Murphy et al, ibid

³ Bonnefoy, X, Kempen, H, Sweeney, K, 2008, *Public Health Significance of Urban Pests*, WHO, Bonn

⁴ Quy, R. (2010). Review of the use of bait boxes during operations to control Norway rats, *Rattus norvegicus* – a report to CIEH

⁵ Buckle AP & Prescott CV (2011) Effects of tamper-resistant bait boxes on bait uptake by Norway rats (*Rattus norvegicus* Berk). *International Journal of Pest Management* 57, 77-83