Guidelines for the safe use of Anticoagulant Rodenticides by professional users
Introduction

1. This guide applies only to anticoagulant rodenticides and their use by professional users in all situations. All anticoagulants act in the same manner: they disrupt the blood clotting mechanism. If a sufficiently high dose is present, death is caused by fatal haemorrhage. The main difference between the anticoagulant rodenticides available is their potency.

2. Traditionally, anticoagulant rodenticides are considered to fall into two groups, first-generation and second-generation products.

   First-generation baits approved for use in the UK, contain: warfarin, coumatetralyl, chlorophacinone or diphacinone. These older products will not control any UK strain of anticoagulant resistant rodent.

   Second-generation baits approved for use in the UK, contain: difenacoum, bromadiolone, brodifacoum or flocoumafen. Resistance to the first two of these has been detected in a few discrete areas. No practical resistance has been detected to baits containing either brodifacoum or flocoumafen.

3. This guideline should be read in conjunction with the Health & Safety Executive leaflet The Safe Use of Rodenticides on Farms and Holdings (HSE Agricultural Information Sheet No 31).

4. All pesticide legislation requires that the conditions contained within the Statutory Box on the label must be complied with. The Directions For Use and other labelling guidance should also be followed to ensure legal compliance, as is the case with all pesticides.

5. The purpose of the guide is to advise professional users in the use of anticoagulant rodenticides in order to minimise hazards and maximise effectiveness.
Definitions

6. Before using anticoagulant baits the phrases found in the statutory box of product labels should be read, understood and complied with – these phrases include the following:

7. ‘For indoor use only’. This condition applies only to baits containing brodifacoum or flocoumafen, the UK Regulatory Authorities have set a condition not imposed by other regulators. It is their perception that the potency of these compounds constitutes a greater hazard to non-target species than that of other rodenticides. Their particular concern is the possibility of the secondary poisoning of predators such as hawks and owls, and scavengers such as dogs and crows. With the possible exception of warfarin, all anticoagulants can probably build up in the livers of animals consuming a significant number of poisoned rodents. The possibility of secondary poisoning should always be of concern when using any anticoagulant rodenticide.

8. ‘Indoor’ is defined as: Situations where bait is placed within a building or other enclosed structure. Covered drains and sewers are considered to be indoor situations. The essential element is ‘enclosed’. This really means behind closed doors to ensure that access by non-target animals is prevented. Furthermore bait may be only laid where the target rodents are living or feeding predominantly within that building or structure. Care should be taken to ensure that the ‘indoor use’ restriction is complied with when using baits containing brodifacoum or flocoumafen.

9. ‘Professional operators’. This no longer means persons whose income is derived largely from pest control, i.e. pest control operators. It is defined as: people who are required to use pesticides as part of their work and who have received appropriate information, instruction and training.

10. Professional pest control operators, farmers or game keepers should not consider using anticoagulant baits unless they are assured, and can prove, that they have received appropriate information, instruction and training in their safe and effective use.

11. Rodent control: It may seem obvious, but anticoagulant baits are approved in the UK only for use against commensal rats and mice. They must never be used against other species such as squirrels or rabbits, the single exception being squirrel control using a warfarin bait prepared from a specific concentrate under defined rules and conditions.
Planning and Recording

12. A thorough survey of the infested site before treatment begins is an essential key to success when using any rodenticide. When brodifacoum or flocoumafen are to be used, particular note should be taken of where rodents are living and feeding.

13. Draw up a simple site plan or location list identifying areas of particular concern pertinent to the site and retain this on file.

14. Note environmental changes which could be made to reduce the attractiveness of the site to rodents in future. Usually this will involve rodent proofing, removing rubbish and weeds providing harbourages and cover.

15. Do not clear the site before treatment. This only disturbs the rodent population, making bait acceptance more difficult to achieve.

16. As far as possible remove obvious food such as spilled grain and cover any food sources.

17. The Control of Substances Hazardous to Health Regulations 1999 (COSHH) require that a COSHH Assessment be undertaken. Note that these regulations relate only to hazards to humans. A generic COSHH assessment may not be adequate if conditions of the site indicate particular risks, for example, where children or special needs persons might gain access, or spilled baits could contaminate food.

18. Users should pay particular attention to the potential for non-target species gaining access to the bait or to rodent bodies. The factors making the site compliant with the INDOOR USE ONLY condition should be recorded if brodifacoum or flocoumafen are to be used. A recorded environmental risk assessment may be advisable on sensitive sites, for example where birds of prey or endangered species are present.

19. The justification for using the chosen anticoagulant bait in preference to other products should be documented.

20. The owner or occupier of the site should be notified before treatment begins. They should be informed of basic precautions and what action to take in the event of an accident or other incident as directed by the label. They should be advised of the procedure to be followed in the event of bait spillage or the
discovery of rodent bodies. The need to prevent interference with baits by staff or visitors should be emphasised. They should be advised of the location of the bait points.

21. A record of all bait points and the amount of bait laid should be maintained during the treatment. Note activity at each bait point, including any missing or disturbed baits as the treatment progresses.

Application and Servicing

22. Follow the label for the size and frequency of bait points and the advice given regarding the frequency and number of visits to the site.

23. Where the risk assessments or treatment records show that more visits are required, then those should be made as frequently as is considered necessary. Daily inspection may be required in some circumstances.

24. Bait stations should be appropriate to the prevailing circumstances. They should provide access to the bait by rodents, while reducing the risks of non-target access and interference by unauthorised persons. They should protect the bait from contamination by dust or rain. Their design, construction and placement should be such that interference is minimised.

25. In some cases burrow baiting may be possible but only where no access by non-target animals is assured and when using brodifacoum or flocoumafen baits it is obvious that any burrows do not extend beyond the enclosed structure.

26. At each visit, baits should be replenished according to the product label and a thorough search made to ensure that bodies and any spilled bait are removed and disposed of safely. Records of such visits should be maintained.

27. In most cases any anticoagulant bait should have achieved control within 35 days. Should activity continue beyond this time, the likely cause should be determined and documented. If bait continues to be consumed without effect, a more potent anticoagulant should be considered. If bait take is poor relative to the apparent size of the infestation, consideration should be given to re-siting the bait points and possibly changing to another bait base, and other environmental changes.
28. Anticoagulants may be used prophylactically where there is a risk of reinfestation. Semi-permanent bait points should only be used where bait is contained within well protected bait stations which minimise the possibility of access by non-target animals and human interference. The baits should be inspected at appropriate intervals and the inspection recorded.

29. Baits should be stored according to the product label.

30. Baits should be used with regard to the good working practices and record keeping that are relevant to the safe and effective use of all rodenticides.

Termination

31. On completion of the treatment, records should be updated to signify that the infestation is controlled and that, as far as reasonably practical, all steps have been taken to ensure that the site is now free of rodent bait and any bodies.

32. All bait, bait stations and any rodent bodies should be removed from the site and disposed of safely usually by burning or burying according to the label.

33. When burning bodies or bait residues, it is essential that this is done in a safe manner using a fire sufficiently hot to reduce the residues to ash. Do not leave the vicinity until you are sure that this has occurred.

34. When burying bait, bait containers or carcasses they should be buried at least 50 cm (18 inches) deep in undisturbed ground. Refill soil should be well compacted. Never bury pesticides where there is a risk of contamination of water supplies, water courses, rivers or streams.

Post Treatment Action

35. All records of the treatment should be reviewed and filed.

Frequent visits to the site and the initial assessment will have revealed those environmental changes necessary to reduce the recurrence of infestation. Normally these would include recommendations to rodent proof the structure as far as is possible, to remove rubbish, weeds providing harbourages and cover for rodents and to remove or enclose potential rodent food sources.
The objective is to reduce the rodent holding capacity of the environment, i.e. to make it less rodent friendly.

36. A copy of your recommendations should be provided to the owners or occupiers of the premises and discussed with them.

Other Relevant Guides

Agricultural Information Sheet No. 31 Safe Use of Rodenticides on Farms and Holdings


Code of Practice for the Safe Use of Pesticides on Farms and Holdings.
ISBN 0118854135. Available from MAFF publications, admail 6000, London SW1A 2XX.

Recommendations for Training Users of Non-Agricultural Pesticides.

Available from HSE Books.

HSE Books can be obtained from:
PO Box 1999, Sudbury, Suffolk CO10 6FS