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All of nature for all of Scotland

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Comhaltas, Oidhreacht agus Páirce Árainn
Environment, Heritage and Local Government**National Parks and
Wildlife Service**

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For further information, contact either the RSPB, BirdWatch Ireland, or your relevant statutory agency. If you find wildlife that you suspect has been poisoned by pesticides, please call the Wildlife Incident Investigation Scheme on 0800 321 600 (freephone).

Further advice on using rodenticides safely is available from:

Campaign for Responsible Rodenticide Use Code

www.thinkwildlife.org.uk/crru-code.php

Campaign Against Accidental or Illegal Poisoning

<http://www.caip-uk.info/>

Health and Safety Executive (HSE) Safe Use of Rodenticides on Farms and Holdings

<http://www.hse.gov.uk/pubns/ais31.pdf>

The Killgerm Guide to Environmental Assessments When Using Rodenticides

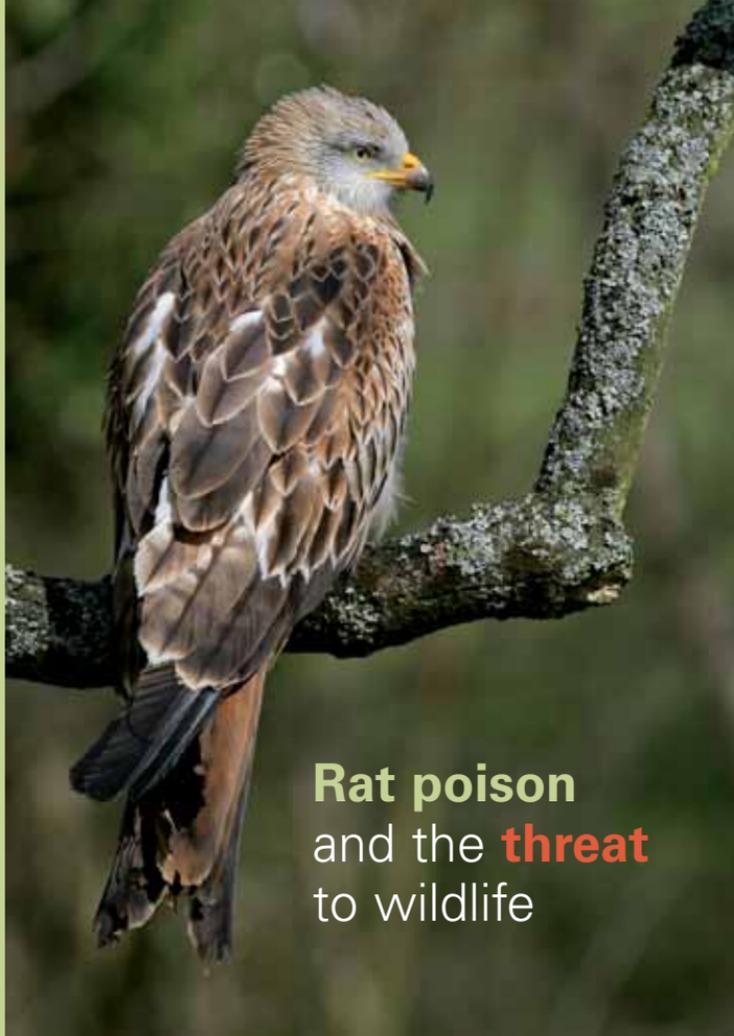
<http://www.killgerm.com/downloads/Environmental%20Work%20Study.pdf>



The RSPB speaks out for birds and wildlife, tackling the problems that threaten our environment. Nature is amazing – help us keep it that way.



The RSPB is part of BirdLife International, the global partnership of bird conservation organisations.



Rat poison and the **threat** to wildlife

Summary

1. **Prevention of rodent infestation is better than cure.** Maintain a clear site to limit sources of rodent food and shelter, and proof buildings to prevent rodent access.
2. **Where possible, consider using alternative methods of control** to anticoagulant rodenticides, such as trapping. Or, if resistance is not thought to be present in local rat populations, consider using less toxic, first generation rodenticides that pose less risk to birds of prey.
3. **Ensure that you are capable** of using rodenticides safely and effectively before embarking on this method of control. Seek professional advice if necessary.
4. **Always follow product label instructions.** In particular, ensure that bait is presented correctly, only the necessary quantity is used, remove bait after use and regularly search for rodent bodies so that they can be disposed of safely.

Introduction

Rat populations need to be controlled in a variety of situations in both urban and rural areas, particularly around farm buildings and other sites where an artificial food source is available. The most commonly used method is the laying of baits containing poisons, known as rodenticides.

However, these products are also toxic to other wildlife, domestic livestock and pets. A failure to adequately protect baits from access by animals and humans (particularly children), and not complying with other instructions on the product label, can lead to prosecution. So, it is best to avoid rodenticide use where possible and take a series of precautions to maximise the efficiency of the method of control, without endangering other wildlife.

Scavenging birds such as the red kite are particularly at risk, as they may pick up poisoned rats (secondary poisoning). Birds from reintroduction projects across the UK have died because of ingesting poisoned rodents. Other birds of prey such as barn owls, buzzards and kestrels, can also be poisoned in this way, as can predatory mammals, e.g. polecats.

As a general rule, the flow chart on the left should be followed when planning how best to prevent rats from becoming established and how to control rats if they do, only moving to the next option when the previous method has proved unsuccessful or impractical.

This leaflet will consider each step, concentrating particularly on how to safely and effectively use the various rodenticides available.

Prevention

Prevention is always better than cure. Once a rodent infestation is established, it can be very difficult to control. So, it's best to stop the rats getting onto your property in the first place. These measures should be carried out as standard, to minimise the risk of an infestation occurring and to reduce the risk of rat numbers increasing again once they have been successfully reduced. The following precautions should be taken wherever possible:

1. Clean up spills of foodstuffs, rubbish and debris close to buildings so that rodents don't have a ready source of food next to shelter.
2. Keep foodstuffs and refuse sealed in rodent-proof containers.
3. Proof buildings to stop rodents getting in.
4. Cover openings with 6 mm wire mesh or similar to prevent young mice entering buildings. Certain bird species, including the swallow and



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barn owl, regularly breed inside farm buildings, so it is important to leave access routes such as windows uncovered, where possible.

5. Prevent gnawing at the bottom of doors by fitting metal "kick plates"
6. Fit circular metal guards around pipes.
7. Trim trees and overhanging vegetation, and remove ground cover from areas around farm buildings. The removal of varied habitat such as this can help make the area less attractive to rats.
8. Consider trying to attract predators to your property to help keep rodent numbers down.

Prevention

Trapping

Traditional rodenticides

More recently developed rodenticides



David Kleier (rsph-images.com)



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Trapping

If, despite all reasonable attempts at prevention, a rat infestation does occur, traps should be considered as a first option for controlling numbers. Using traps can eliminate the risk of accidentally poisoning non-target wildlife, but it is important to use the right type of trap. Both live capture traps and spring traps designed to kill rodents are available. Live capture traps should be checked on a daily basis and any rats or mice caught should be humanely dispatched. Where spring traps are used, it is a legal requirement in the UK that these are placed under cover or protected to prevent non-target animals and birds from being caught.

Rodents prefer to run along the edges of open ground, so placing traps against walls or other hard features is recommended. It is important that rats killed in traps are disposed of in the same way as those killed by rodenticide, as rats can range widely and may have picked up rodenticide from elsewhere in the local area.

Traps are generally not sufficient to deal with significant infestations, as rats are naturally suspicious. However, they are useful in controlling small numbers of rats, clearing up the last few that may have survived rodenticide treatment and preventing re-infestation after a control period has finished.

Rodenticides

If the use of rodenticides is deemed necessary, a series of initial steps must be taken. Carefully read the product label and other industry and government guidance, and make sure that you follow all the instructions, as required by law. If in doubt, contact the manufacturer or a suitable adviser in the relevant statutory agency.

If you are using a rodenticide as part of your work, it is a legal requirement that you are adequately trained and competent to use the product. In the case of major infestations, control can be difficult, and it may be best to seek professional advice. When using any rodenticide, all possible measures should be taken to minimise the risk of poisoning non-target wildlife.

1. Survey the site to establish the full extent of the infestation, including where rats are living, moving and feeding, both before and during treatments. This can help maximise the efficiency of control techniques and limit the amount of poison released into the natural environment.
2. Use baits only for as long as it is necessary to achieve satisfactory control and normally no longer than 35 days in any treatment. Remove all bait at the end of the treatment – if a bait box is not used, use bait trays to make removal easier. As well as reducing the risk of poisoning non-target wildlife, this can help limit the build up of resistance amongst the rat population, therefore making any future control easier.
3. Ensure bait is sufficiently protected to avoid other birds and mammals eating it. Use natural materials where possible. If using bait in sachets or blocks, ensure these are fixed in



Emilie Janes (fspb-images.com)

- position to prevent rats moving them. Hole or burrow baiting can be effective but treated areas must be covered or plugged to prevent other animals taking the bait, and need checking regularly.
4. Carry out regular inspections to search for rodent bodies, both during and after the treatment period. Many rats will not die until several days after eating the bait and can be found up to 100 m or more away from the bait site. During this period, they are a particular hazard for hunters such as barn owls. Although many rats die underground, it is crucial to search for bodies at the surface and under any cover, so that scavengers do not find them and become victims of secondary poisoning. This is particularly important in areas where red kites, or other vulnerable species, are present. The frequency of visits required depends on the level of infestation and the risk of poisoning non-target species. In some situations, daily inspections are necessary.

Any rats found dying should be dispatched humanely. It is an offence not to search for dead rats when using rodenticides, and controllers and employers have been prosecuted for this failure.

5. Closely follow advice on the label about the correct disposal of rodent bodies. Carcasses should not be left on farm manure heaps, rubbish dumps, or any location where they could be eaten by scavenging animals.

A vital consideration is selecting which rodenticide to use. Most rodenticides are anti-coagulant pesticides and these can be split into less toxic first generation rodenticides and newer, more toxic second generation rodenticides. Although some other products exist based on natural substances (eliminating the risk of secondary poisoning), there is limited evidence to show that these compounds are effective in dealing with practical situations, such as infestations on farms.



Mark Sisson (fspb-images.com)

Second generation rodenticides

More recently developed, second generation rodenticides are more toxic products, based on one of four active ingredients; difenacoum, bromadiolone, brodifacoum and flocoumafen. The latter two can only legally be used inside a building or other enclosed structure in the UK. They can also only be used when the target rodents are living and feeding predominantly inside the building. So, if rats are living outdoors in hedges or ditches, and coming into a barn to feed, brodifacoum and flocoumafen must not be used. This limits their usefulness in many situations.

wildlife. Resistance to more recently developed rodenticides is also much more localised, having been reported mainly in pockets of southern England, particularly Hampshire, Berkshire and the Chilterns, as well as some areas of Yorkshire, Lincolnshire and Norfolk.

Once an infestation has been brought under control, any toxic bait used should be removed. A small number of traps may be necessary around certain areas where rats persist, which should always be checked daily. Long-term use of rodenticide baits is discouraged as this can lead to more rapid development of resistance and extended risk to non-target wildlife. This is particularly true with second generation rodenticides. Prevention techniques such as those discussed earlier in this leaflet should be used to minimise the risk of a new influx of rats. Non-toxic indicator baits can also be used to monitor for the early signs of any large-scale immigration. These can be very useful in detecting any new infestation at an early stage, making control easier.

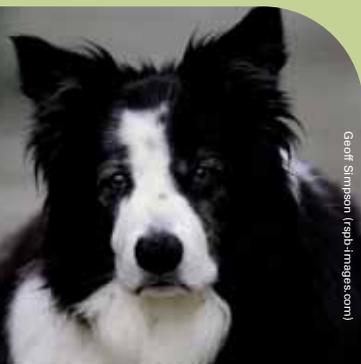
Traditional first generation rodenticides

If rodenticides are used, products with the active ingredients warfarin, coumatetralyl and chlorophacinone are preferable, except for areas where resistance is known to have developed amongst the local rat population. These products are often not immediately available from local

suppliers, but significantly lower the risk of secondary poisoning.

Resistance to the rodenticides above has been reported from large areas of central Wales/west Midlands, southern England, Humberside, parts of Norfolk and pockets in western Scotland. No systematic testing has been carried out for many years, so the extent of rat resistance to these products is unknown. Where resistance is tested, it is normally in response to a complaint about inefficiency of control. It is therefore possible that the geographical extent of resistance is overestimated, as there can be many other reasons for control failure. Resistance is not a major problem in Ireland.

If first generation rodenticides are available, they do carry a much lower risk of accidentally poisoning non-target species. However, in some areas of the UK, traditional rodenticides will not be effective.



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