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Health



A guide to carrying out an environmental assessment prior to the use of rodenticides

Oct 2012

Environmental assessments



Irrespective of the type of baiting techniques used, an environmental assessment should always be carried out before treatments using rodenticide baits begin.

The purpose of an environmental assessment is to determine possible environmental effects and identify which precautions are necessary to protect wildlife and the wider environment. The main considerations are:

- where and what the rodent problems are
- which protected species may be present in or near the treatment site
- what alternative environmental measures would be appropriate
- what is the risk to non-target species that have been identified
- what is the treatment designed to achieve and how will success be measured
- what is expected from the client (i.e. the owner or occupier of the infested premises/area)
- what follow up measures are required

Proper record keeping is a fundamental way that users of rodenticides can help themselves in meeting their legal obligations. Failing to keep adequate records of the type of bait used and locations of bait points may form the basis of a case against the user.

How to carry out an environmental assessment

Although it deals primarily with the use of agricultural pesticides, the 'Code of Practice for Using Plant Protection Products' (section 3.8), available to download on www.pesticides.gov.uk, gives useful advice which will help operators using rodenticides in rural areas.

The following recommendations, specific to rodenticide use, are not definitive but have been agreed with Natural England as providing a useful guide to carrying out an appropriate assessment.

Where and what are the problems?

The first requirement of any assessment is to establish what is the extent and location of the rodent pest problem.

In all but the simplest of situations a site plan should be drawn up which identifies which buildings and areas need to be treated. This plan should clearly show the layout of the site, and any buildings or other features that are relevant. The site plan should identify the position of all baiting points.

Some treatments may be near areas with a special status in law, for example

- Local Nature Reserves (LNR)
- Marine Nature Reserves (MNR)
- National Nature Reserves (NNR)
- Sites of Special Scientific Interest (SSSI)
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)

These sites must be protected from any possible harmful effects resulting from using rodenticides in or near them. If in doubt, Natural England, Scottish Natural Heritage, the Countryside Council for Wales and the Northern Ireland Department of the Environment should be consulted.

Normally, the owner or occupier of the area to be treated is responsible for giving notice to the appropriate conservation agency and getting any permission needed before pesticides are applied. However, if the treatment will be carried out by a person or company applying pesticides as a commercial service, the person applying the pesticide should:

- discuss with the owner or occupier of the area to be treated whether the area or its surroundings need special consideration
- ask if the necessary notice has been given and any necessary permission received

Detailed treatment records are particularly important if pesticide is being used on, or near, such sites.

The site plan should also clearly state the inspection regime to be followed, always remembering that regular inspection of bait stations and searches for rodent carcasses should be undertaken.

Which protected species may be present in or near the treatment site?

Wildlife and domestic or companion animals that may be affected by a rodent treatment will include:

- raptors such as owls, kestrels, red kites, and hawks
- mammals such as field mice, voles, weasels and stoats
- domestic animals such as cattle, pigs and horses
- companion animals such as cats and dogs
- aquatic vertebrates

Note should also be taken of any risk to humans that may occur through rodent baiting.

What alternative environmental measures would be appropriate?

By removing harborages such as rubbish and discarded equipment, rodent populations can be significantly reduced. Cutting undergrowth around and between buildings will also help to discourage rodents

Proofing of buildings and maintaining them in a sound condition combined with good housekeeping will also reduce the chances of rodents entering buildings and becoming established.

If possible, prevent or limit access to food sources and avoid spillages.

However, with the exception of removing food that may be attractive to rodents, these measures should not be carried out before a rodenticide treatment takes place since this may spread the infestation before the treatment has had a chance to be effective.

Adopting environmental measures is always good practice but it is likely to take longer to control rodent populations through these measures alone and so if used in isolation, will not provide a quick answer to the problem if rodent infestation.

What are the risks to non-target species that have been identified and how to mitigate them?

Wild birds and mammals, including pets, are at particular risk from pesticides in granule, pellet or bait form.

All precautions and advice on product labels should be followed to protect birds and mammals.

In some situations, such as if water voles are at risk of poisoning, special care is needed.

The evidence shows that many incidents of poisoning involve companion animals (i.e. cats and dogs). Where wildlife is concerned, buzzards, foxes and red kites are the most common species affected.

There is little evidence that first generation anticoagulants are involved in the secondary poisoning of wildlife and these compounds are most often found in cases involving the direct exposure of companion animals and foxes/badgers by consumption of baits. The second generation compounds can affect companion animals and wildlife by both direct consumption of baits and by the consumption of dead and dying rodents carrying residues of the rodenticides.

Further evidence from food studies suggest that contamination of some wildlife species, such as owls and kestrels, occurs mainly from predators taking non-target small mammals, such as field mice and voles, rather than from consuming the bodies of target rats and mice. Other species, such as red kites and polecats are more likely to take target rodents.

An essential requirement in rodenticide application is to ensure that all necessary measures are used to make baits inaccessible to non-target animals. However, for example in locked and structurally

sound premises, it may be possible to achieve this requirement using open bait trays. Such applications are most likely to achieve rapid and effective rodent control because rodents do not need to overcome their innate suspicion of new objects.

In most practical circumstances, however, it will be necessary to protect the baits from non-target animals. This may be done with materials available on site, such as pieces of corrugated metal, bricks, concrete slabs, pipes, etc. But such protection must be robust enough to prevent access to bait placements by large animals such as dogs, foxes and badgers.

If sufficient materials are not available on site or are not sufficiently robust, purpose-made tamper-resistant bait stations should be used. These are often the choice of professional pest controllers because they offer the most reliable protection of baits from access by non-target animals, although they do not protect baits from consumption by animals smaller than rodents. However, the use of tamper resistant bait stations may inhibit the uptake of bait by rodents for a time, thereby extending the length of treatments. They may also encourage bait transfer, where rodents take unsecured baits from the stations and hide them elsewhere for later consumption.

Where safe to do so, the direct application of baits to rat burrows is a highly effective method of control. Frequent checks of baited burrows are required to clear up bait that is kicked out by rodents.

Most rodent infestations will be effectively controlled with rodenticides within 35 days. Some smaller infestations will be controlled sooner.





To ensure that treatments can be properly monitored, full written records should always be kept. In the event of a dispute, these records will be needed to show that all due diligence has been used in conducting the rodenticide treatment.

Where a major infestation exists on neighbouring land and is not being controlled by the occupier, permanent baiting to protect a customer's land and buildings may be applicable. Again, where this method of control is chosen, a written record of the assessed requirement for permanent baiting should be kept.



In order to achieve control of the whole population, an attempt should be made to co-ordinate treatments on adjoining sites.

Finally, regular collection and disposal of rodent carcasses will minimise the risk of non-target species feeding on the carcasses leading to secondary poisoning. Diligent searches for the bodies of all poisoned animals should be conducted regularly, and this should be done at least as often as the site is visited to check and replenish bait points.

On completion of the treatment all reasonable efforts must be made to clear up and remove uneaten or contaminated bait. This must then be disposed of properly. It is very difficult to retrieve uneaten bait in the case of hole or burrow baiting, but this should be done wherever possible and at least no bait should be left outside burrows that have been ejected from them.

Further information on the safe use of rodenticides in rural settings is given in HSE 'Safe use of rodenticides on farms and holdings' Agriculture Information Sheet No. 31.

What is the treatment designed to achieve and how will success be measured?

A major requirement will be to identify the exact purpose of the treatment and to assess how its success will be measured. It is often not practical to expect total eradication but contractors and others will be expected to identify what is considered to be effective control before the treatment starts.

At the end of the treatment period, an assessment should be made of the outcome and level of success. The results and findings should be recorded.

What is expected from the client?

Too often clients fail to accept responsibility for the part that they should play during the course of a treatment. The operator or other person laying the bait should provide instruction and guidance on the measures that need to be taken. These will include how to deal with spilled or disturbed bait points and the discovery and disposal of rodent carcasses. Advice on proofing, good housekeeping measures, such as keeping sites clean and tidy, as well as the removal of alternative food sources, should be included.

Where environmental management measures are planned, these must be implemented and subsequently maintained.

Incidents will inevitably occur between visits and clients should be advised as to suitable emergency measures which can be implemented by them in such cases.

If clients do fail in their responsibilities, this should be recorded and the client advised.

What are the follow up measures that are required?

Once a treatment has been carried out, pro-active measures to prevent re-infestation should be introduced.

Clients should be advised of the part they can play and full written details left with them.

Keeping proper written records of assessments and treatments will often reduce the risk of prosecution and these should be kept for at least five years after the end of the treatment.



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