



## Safe use of rodenticides on farms and holdings

### Agriculture Information Sheet No 31

#### Introduction

This information sheet provides guidance on some of the precautions that need to be taken when using rodenticides. In particular it gives advice on how to prevent children, pets and wildlife from gaining access to baits. It assumes that the user is competent and has been adequately trained.

Rat and mouse infestations need to be adequately controlled to reduce the risk from disease and of damage. Your primary aim should be to avoid infestation. Once established, rats and mice can be difficult to control.

Consider all available controls - not just the use of rodenticides - including simple measures such as clearing away rubbish, proofing of buildings, and the use of traps. Regular monitoring of high-risk areas is advisable. In some situations the use of perimeter or long-term baiting stations may be appropriate. Long-term baiting stations may control invading rodents, or help to give you early warning of infestation, so that treatment can be better targeted and timed, ie before an infestation becomes well established. All these measures should help to reduce the need to use rodenticides and minimise the quantity of bait that has to be laid.

#### What to do before treatment

Remember that rats are particularly shy animals and nervous of strange objects that appear in their territories, therefore it is better to use existing materials, where available, rather than introduce bait containers, as long as you can protect the bait adequately. House mice are generally more inquisitive so this problem is less likely to arise. Take this into account when you plan and carry out a control treatment. Reducing the availability of alternative food at the start of treatment, or shortly afterwards, can encourage rodents to feed on the bait you have placed for them.

#### Site survey

You should carry out a site survey to establish the type, level and extent of infestation. This will help you identify important elements such as the presence of children and non-target animals, including livestock, pets and wildlife. It may also identify other influencing factors that will dictate the way in which you carry out the particular rodenticide treatment - for example, the need to improve housekeeping, reduce the availability of alternative foodstuffs and highlight building/drain repairs. It may be helpful to note these items on a plan of the holding.

#### COSHH assessment

You can then carry out your assessment as required by the Control of Substances Hazardous to Health Regulations 1999 (the COSHH assessment). This will help ensure that the product you select, and its method of application, will result in effective pest control with least risk to yourself and anyone else who may come into contact with the rodenticide. At this stage you should decide where to lay bait points and, if appropriate, how to prevent access by children and animals, for example:

- proprietary tamper-resistant bait stations;
- self-made bait boxes;
- suitable materials available on site;
- by placing baits in locked or otherwise secure premises; or
- by locating baits in positions inaccessible to children and non-target animals.

It is good practice to always record your assessment in writing. This is a legal requirement under COSHH, except for the simplest and most obvious cases (which can be easily repeated and explained at any time) when your assessment need not be recorded.

#### Bait formulation

The formulation should be suitable for the conditions and circumstances of the infestation. A wide range of products is available for you to choose from, formulated on a variety of bait bases including:

- meals;
- cut or whole grain;
- pellets;
- wax blocks;
- edible lards/gels;
- liquid baits;
- contact dusts.

Rodenticide concentrates for preparing dry or liquid baits are also available. Use a bait base that is suitable for the

infestation, such as the primary food the rodents are eating.

If you do prepare and mix your own bait, you may need to take special precautions, including the use of personal protective equipment. Your COSHH assessment should identify these additional controls. It is illegal to exceed the recommended concentration. Doing so will result in the finished bait posing a greater hazard, and may make it less palatable to rodents.

### **Remember**

- **Only use a product that has been approved for use as a rodenticide.**
- **Read the label and ensure that you can comply with the statutory conditions of use.**
- **Follow directions for use and any other information supplied with the product.**
- **Ensure you carry out all the control measures identified in your own COSHH assessment.**

### **What to do during treatment**

#### ***Records***

Make a written record of where you have placed the bait, which rodenticide was used and how much bait has been laid. Inform employees and others with regular access to the site that a rodenticide treatment is in place and of the products involved and any actions they should take.

If you are a professional pest control operator, tell clients and other occupiers or users of sites and premises what you have done, the type of product used, and about any precautions necessary in relation to the treatment. Make them aware of the risks involved and the action they should take in an emergency. Leave a copy of your written record with them. If possible, obtain their signature to confirm that they have received and understood details of the work that has been carried out.

#### ***Monitoring***

Monitor the treatment regularly so you can:

- ensure that sufficient bait is available;
- check that the baiting points remain secure;
- deal with spillages or other problems as they occur; and
- observe the progress of the control.

#### ***Hoarding of bait***

Remember that rats may remove baits which can be carried and hoard them, or drop them in areas where children or non-target animals can gain access to them, so if appropriate, secure any sachets or wax blocks at the placement site. If more bait is being consumed than expected for the size of the infestation, consider whether hoarding may be a problem. If it is, search for any caches of bait and dispose of it safely.

#### ***Removal of dead rodents***

Search for, and remove, any dead rodents and dispose of them safely by following the label advice or by using the services of a specialist waste disposal contractor. Effective removal of carcasses will reduce the risk of secondary poisoning and is especially important in areas where birds of prey or other predators are known to be active, and where high populations of outdoor rodents are being controlled. After you have completed the treatment it is your duty to ensure that all remains of bait and containers are removed from the site and disposed of according to the label instructions. You cannot rely on others to carry out these tasks.

#### ***Farm buildings***

The average farm has a range of buildings, including grain storage facilities and animal rearing accommodation. You may find infestations in all these places as well as outdoor locations in the immediate vicinity. It is also likely that livestock, domestic animals, including dogs and cats, along with wildlife such as birds and mammals, will be using or visiting various parts of the holding. Children may also be present.

Your site survey should have identified where the rats are living, travelling and feeding. The COSHH assessment should have helped you decide on the rodenticide formulation to use and the best method of presenting the bait to achieve good rodent control with the least risk to children and animals.

#### ***Placing the bait***

Outside the farm buildings you are likely to find rats in:

- burrows;
- piles of rubbish, vegetation or other materials; and
- shelter afforded by machinery or other suitable structures.

If you place the bait in burrows, you should cover the burrow entrances afterwards to reduce the risks of bait being ejected or spilt. You can place bait in other areas

as long as it can be protected from access by children, pets etc, for example under sheets of corrugated iron, or beneath pallets or stacks of straw and timber.

If you place bait directly on the ground it may be difficult to remove at the end of the treatment. Using open plastic trays or other measures will help to avoid such problems. Your main consideration has to be whether the baits are adequately protected from access by children and non-target animals, while being available to the rodents in all the affected areas. You also need to take account of the risks from bait being disturbed as a result of rodent activity. High populations, or bait placed in areas where the rat is not feeling comfortable may influence this.

If you cannot find suitable cover to protect baits, you will have to use other measures unless (for indoor baiting) you can control or restrict access to the area in which the bait is laid. You can make your own boxes for this, or buy commercially available tamper-resistant bait stations. Where appropriate, use the latter in accordance with the manufacturer's instructions. Where the COSHH assessment identifies it as being necessary, you should ensure the bait station is secured in position (for example when the bait is of a type that could be shaken out), and that you have followed the instructions to prevent the container being opened.

### **Replenishing bait**

Once installed, inspect every 1-2 weeks and replenish eaten bait as necessary. It is important to record the amounts put down, to decide whether larger amounts of bait are needed. Make regular searches for dead rodents and dispose of them safely. You should continue baiting until all feeding activity has stopped, except in particularly vulnerable situations where it may be appropriate to retain baits to deal with other rodents moving into the area.

Finally, record where you have laid bait. This will help you with checking and replenishing of baiting points, and removing the bait at the end of the treatment.

### **Straw, stacks and other stored commodities**

Stored feeding stuffs and bedding, such as stacks of bales outdoors are particularly attractive to rodents, especially during winter. You may decide to continue laying bait to prevent rats and mice becoming established at such sites. However, don't forget about proofing of buildings and removing areas of harbourage.

- Take account of the possibility that baits may become exposed or disturbed as the stored material is used and that children or non-target animals may have unrestricted access to the site. In such circumstances, bait placed in plastic bags or applied loose may be particularly hazardous to wildlife or other animals, and may also contaminate

the stored product. You need to tell anyone likely to dismantle stacks how important it is to ensure that bait remains protected.

- Use suitable bait containers such as tamper-resistant boxes. Lengths of drainpipe may also be used for protecting bait, but do not use pipes of excessively large diameter and ensure they are long enough to stop long-necked birds reaching the bait. Consider using pipes with baffles or restricted entrance sizes to reduce the risk of spillage of bait. These points may be in position for several months, so consider the placement position carefully.
- Put baits around the perimeter of vulnerable storage areas and where necessary, place points along hedgelines or other field features likely to be used by rats, especially where these are near to the site to be protected.
- Take particular care where a public footpath runs close by the treatment area or other general access is foreseeable. In exceptional circumstances it may be necessary to put up warning notices.
- Monitor treatments regularly and check for evidence of displaced bait points, spillage or interference. As the straw or other material is used up, remove bait stations that have become exposed. Dispose of uneaten bait and any dead rodents you find by following the label advice, or using the services of a specialist waste disposal contractor.

### **Ditches, hedgerows and woodland**

Dealing with rodent problems in open rural situations creates additional problems regarding the protection of bait points, particularly where rats are living in burrows excavated in soil.

Place baits directly into active burrows or use suitable boxes or containers. Loose grain, pelleted or sachet/pack formulations may be suitable for such purposes. Cover all treated holes, and regularly monitor for evidence of bait spillage or disturbance.

### **Grain or other crop storage**

In these situations, and where animal feed is kept, take precautions to ensure that the stored product does not become contaminated with rodenticide. Normally, use bait boxes or stations and do not place bait points directly onto vulnerable commodities.

### **Livestock units**

Do not place baits where animals are likely to be able to gain direct access. Avoid baiting in areas which could result in rodenticide falling into yards, pens or cages.

Where pigs are present, it is particularly important that you make regular checks, because they will eat rodent carcasses and are particularly sensitive to the effects of warfarin.

### Long-term baiting

Where long-term baiting is used, it is essential that baits are adequately protected from access by children and non-target animals. Alternatively, non-poisonous indicator blocks or whole grain may be used as a guide to the presence of infestation and trigger the subsequent use of rodenticide.

Bait stations should be established on likely runs adjacent to vulnerable buildings and premises. Where possible, these should be camouflaged. In addition to being secure the bait should be protected from the effects of moisture. Baits based on whole grain, pellets and wax blocks are usually the most suitable for this purpose. Wax blocks should be secured inside bait stations.

### Storage of bait

Keep all rodenticides secure in a suitably located store. Bait should be kept in the original package, except when put into a new container for use, when a copy of the product label should be attached. However, it is illegal to offer such relabelled bait for sale, or to supply it to others. Equipment used during treatments should be cleaned after use. Where a bait is prepared from a concentrate, ensure it is labelled with the bait label supplied.

### Rodent-borne diseases

You should be aware that rodents can carry diseases that may be serious or even life-threatening. These may be caught by contact with surfaces or water contaminated with rodent urine. You should get into the habit of wearing waterproof gloves when working in areas that may be infested. Cover cuts and abrasions on exposed parts of the body with waterproof dressings. Wash exposed skin thoroughly before eating, drinking or smoking, and after use. If you cut yourself, clean and dress the wound immediately. If you need to seek medical attention after carrying out rodent control, tell the doctor about your occupation and the work that you have been involved in.

### Further advice

You can obtain further advice on dealing with rodent infestations from rodenticide manufacturers and distributors, local authority environmental health departments, private consultants and Farming and Rural Conservation Agency (FRCA) Advisers. For guidance on the legislation, consult your local Health and Safety Executive office.

### Further reading

*Safe use of pesticides for non-agricultural purposes. Control of Substances Hazardous to Health Regulations 1994. Approved Code of Practice L9* HSE Books 1991 ISBN 0 7176 0542 6

*Recommendations for training users of non-agricultural pesticides* HSE Books 1990 ISBN 0 11 885848 4

*COSHH in agriculture* Leaflet AS28 (Rev) HSE Books 1997

*Guidance on storing pesticides for farmers and other professional users* Agricultural Information Sheet AIS16 HSE Books 1996

MAFF/FRCA leaflets on the control of rats and mice, WM4 *Rats* and WM5 *House mice* (revised May 1998) are available free from MAFF Regional Service Centres (see telephone directory)

The future availability and accuracy of the references listed in this publication cannot be guaranteed.

### Further information

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA. Tel: 01787 881165 Fax: 01787 313995.

HSE priced publications are also available from good booksellers.

For other enquiries ring HSE's InfoLine Tel: 0541 545500, or write to HSE's Information Centre, Broad Lane, Sheffield S3 7HQ.

HSE home page on the World Wide Web:  
<http://www.open.gov.uk/hse/hsehome.htm>

<p>This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.</p>
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