

# Pesticides and bats

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*For House Stewards, Conservators, Rural Surveyors, Gardeners, Foresters, Wardens, Property Managers when insect and fungal problems need to be dealt with.*

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## Key points

- Bats are found on most, if not all, National Trust properties.
- Bats can be killed by many pesticides.
- Bats, many endangered, are protected by law.
- It is easy to accidentally poison bats through lack of knowledge of their roosting and feeding habits.

## 1. BACKGROUND

- All UK bats are insect-eating, usually taking flying insects. Pesticides can, therefore, affect bats either by reducing their food supply (numbers of insects have been recorded as having been reduced to one quarter in the last 50 years) or poisoning them through ingestion of insects containing doses of insecticide. This, in turn, can cause debilitation, reduce fertility or cause death.
- Treatment for wood-boring insects on timbers in buildings can also affect the bats directly. Generally bats are six times more sensitive to poisons than many other mammals. Lindane, for instance, a commonly used organochlorine insecticide until the 1990s, has been found to kill bats coming in contact with it within 24 hours, even if it had been applied at least two years previously. Insecticides based on a synthetic pyrethroid, such as permethrin and cypermethrin are safer options and the only COSHH approved ones used by the National Trust.
- Various anthelmintic treatments for livestock, such as those based on avermectin, can remain toxic having passed through the animals, so killing the beetles and flies that are associated with the dung. Some bat species, such as serotine and greater horseshoe bats are specialist feeders on these insects and rely on them at certain times of the year.
- Using insecticides to control wasps, bees or cluster flies in roof spaces or other places where bats may roost could poison the bats.
- All bats are protected by law.

## 2. POSITION

For many years, the Trust has sought to minimise its use of pesticides. In buildings, any use is avoided whenever possible. In woodlands very little is used. The Gardens and Landscape Parks Policy states that developments should minimise adverse environmental impacts, both on and off the property. The Agricultural Policy states that conservation and enhancement of farmland biodiversity must depend, in large, on the protection of existing valuable habitats, by ensuring that they are not eroded by agricultural practice.

The position of the Agricultural section is that it wishes to “reduce environmental impact of agriculture and realise the environmental potential of its farmland.”

**Draft Pesticides policy:**

Pesticides will only be used where this will result in tangible conservation benefits, will not cause irreversible environmental damage and only where there is no viable, less harmful, alternative.

**Environmental Potential of Farmland policy:**

The Trust will seek to optimise the environmental potential of its farmland. In particular it will promote and encourage farming practices that protect and enhance biodiversity and cultural diversity.

### 3. ACTIONS

#### Buildings

- Bats commonly roost in roof spaces and use cellars. Therefore, remedial timber treatment or fungicidal treatment in, or near, areas where bats roost must only be carried out after seeking advice from a statutory nature conservation organisation (SNCO) – English Nature, Countryside Council for Wales or Environment and Heritage Service in N Ireland.
- Any treatment for wasps, bees and cluster flies needs to take account of possible bat presence. Again contact the SNCO for advice if bats use the site (and it is to be assumed that bats use all National Trust properties). Bats commonly roost under eaves and in roof spaces.
- It would be sensible in areas where bats do not roost to use bat-safe treatments in case bats use the site in the future.

#### Farms, gardens, woodlands

- If pesticides have to be used, early morning would be preferable, giving insects time to die before bats begin to feed the following dusk. On crops pollinated by bees this may not be possible in which case question the need for any spraying
- Avoid sprays landing on insect-rich associated ground, such as headlands, hedgerows, fire-breaks and land taken out of production.
- Avoid or limit use of avermectins in areas where dung has wildlife interest. Alternatives are now available or apply at times other than spring and summer and not to livestock on pasture (see Guidance Note “A new position on the use of anti-parasitic drugs in livestock”)
- Any treatment for wasps or bees in tree cavities, for instance, needs to take account of possible bat presence. Again contact the SNCO for advice if bats use the site.

#### Further information

National Trust COSHH approved pesticide lists for remedial building work and gardens, woods and countryside (see Intranet Health & Safety).

Guidance Notes on the use of avermectins (“A new position on the use of anti-parasitic drugs in livestock”), Bats and the Law.

Wildlife and Buildings – Technical Guidance booklet, Estates department 2001, also at [www.nationaltrust.org.uk/wildbuildings](http://www.nationaltrust.org.uk/wildbuildings)

Manual of Building (see Intranet).

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