Comments submitted by: National Pest Technicians Association, UK

General comments
Rodent control is essential, and in many cases a legal requirement (1)(2), to prevent disease transmission, consumption and contamination of food and feeding stuffs, structural damage and to remove social abhorrence.

Currently, the anticoagulant rodenticides (also referred to as AVKs) are the dominant and most effective substances for rodent control. Therefore, the current AVK active substances approved for PT 14 will continue to be essential for efficient and effective rodent control in order to maintain good public hygiene and protect public health.

Alternative Identity and Properties
Although there are a number of alternative chemical rodenticides approved under the BPR, none offer the utility and efficacy provided by the AVKs as acknowledged by the experts in the RMM report.

These are described below:

Alphachloralose
In the UK, this substance can only be used for mouse control indoors and is not approved for the control of rats.

Aluminium phosphide
In the UK, this fumigant can be used only by specially-trained professional pest control technicians. It cannot be used within 10m buildings because it works by the evolution of a toxic gas which cannot be fully controlled when it has been produced. Although valuable in some circumstances, this property makes aluminium phosphide inappropriate for most rodent control situations.

Carbon dioxide
Once again, this substance is currently restricted for use only against mice indoors. It is dispensed using a special automatic application device available to one company only, so it is appropriate only in very limited practical use situations.

Powdered corn cob
We are not aware of any professional pest controller that uses this substance in the course of their work. We have yet to see any convincing evidence of its efficacy.

As a result of these limitations, the vast majority of rodent control operations in the UK are conducted using the anticoagulant rodenticides, and will be so for the foreseeable future. The anticoagulants are widely used because they are generally efficacious, practical in use and, in comparison with the acute rodenticides that preceded them, have valuable safety characteristics.

Technical Feasibility
There are some alternative techniques to anticoagulant rodenticides for the management of rodent infestations, although none of these are considered to be as cost-effective and efficient as the use of an efficacious rodenticide. These alternatives fall into two broad categories; those aimed at killing rodents (e.g. traps, glue-/sticky-boards, the use of dogs and shooting) and those that aim to restrict either their population size (habitat modification) or access of populations to vulnerable areas (repellents and

proofing/exclusion). They provide useful complementary techniques to the use of anticoagulant rodenticides for controlling rodents but are not considered to be replacements for them.

The use of dogs and shooting cannot be used in most urban/sub urban situations. Traps and glue boards are similarly limited in many situations.

Whilst proofing of buildings to exclude rodents is always an option that should be considered, some situations, such as outdoors, can simply not be proofed.

Economic feasibility
Those alternative control methods that are available, such as trapping or the use of dogs, are very labour-intensive, so become extremely expensive except for the smallest of infestations. Traps should be checked very frequently after setting, for humane and legal reasons.

Hazards and Risks of the Alternative
The highly toxic alternative, aluminium phosphide, is very restricted in its use anywhere near human or animal habitations. Once opened, it is a label requirement that an entire vial of pellets be used, limiting its use to only the largest of rat infestations and severely restricting its use in follow up treatments.

Shooting is also severely limited in its application, for legal and safety reasons.

Availability
Control equipment that uses Carbon dioxide is only available for use by one company, so its availability is extremely limited.

Conclusion on suitability and availability of the alternative
At present there are no truly viable alternatives to the AVK rodenticides. Those alternatives that do exist can assist in the control of some rodents in some situations, but simply cannot replace the AVKs. If the anticoagulants are used as laid out in the CRRU 'Code of Best Practice' (3) for rodent control, which is being heavily promoted within the professional pest control sector, we believe that a lot of the problems that they can pose to the environment can be successfully mitigated.

Other comments
We believe that the measures being introduced under the UK's 'Rodenticide Stewardship Scheme' will, in time, ensure that these incredibly useful chemicals can be used for many years to come.

References
Prevention of Damage by Pests Act 1949 (1)
"It shall be the duty of every local authority to take such steps as may be necessary to secure so far as practicable that their district is kept free from rats and mice"

Food Safety Act 1990 (2)
Any person who sells to the purchaser’s prejudice any food which is not of the nature or substance or quality demanded by the purchaser shall be guilty of an offence. (this includes food damaged or contaminated by rodents).

CRRU "Best Practice and Guidance for Rodent Control and the safe Use of Rodenticides by Professional Users in the United Kingdom" (3)