Vertebrate pesticide toxicology manual (poisons)

Information on poisons used in New Zealand as vertebrate pesticides

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This is a revised edition of *Vertebrate pest control manual: Toxins and poisons. Information on toxins and poisons used in vertebrate pesticides,* edited by N. Haydock and C.T. Eason, 1997 (commonly referred to as the 'Toxins Manual').

Department of Conservation Technical Series presents instructional guide books and data sets, aimed at the conservation officer in the field. Publications in this series are reviewed to ensure they represent standards of current best practice in the subject area.

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Foreword

This manual was first compiled in 1997 and published by the Department of Conservation as a scientific reference document designed to assist all those involved in the planning, and use of, registered poisons for the control of animal pests in New Zealand. It is appropriate that a new edition has been produced as the use of pest control products for conservation is a rapidly evolving field with numerous publications relating to their efficacy, advantages, and disadvantages appearing in the last 3 years. Please note that other documents will need to be referred to for details of the Health and Safety aspects of working with toxic substances.

The Department recognises that the use of vertebrate pesticides to control animal pests will always be difficult for some members of the wider community to accept, especially the concept that the benefits of their use may outweigh any perceived or real deleterious environmental effects.

New Zealand's animal pest problems are unique. Unlike in Australia, where many native plants contain natural toxins (including monofluoroacetate, the active chemical for 1080) as defence against browsing animals, the New Zealand forests evolved in the absence of mammals and without a need for such chemical defences. Our forests are, therefore, extremely vulnerable to mammalian browsers. The application of toxic baits has been developed as one effective means of controlling animal pests. Continued access to, and acceptability of, poisons is essential if we are to maintain our economic health and meet our international obligations for biodiversity protection, to say nothing of maintaining the natural heritage of our forest landscapes. The maintenance of this access depends upon the continued responsible use of poisons by all who are required to use them. It must be appreciated that all poisons have advantages and disadvantages, which make them more or less appropriate for different use patterns.

The information included in this manual is specifically relevant to the use of toxic baits for pest control as part of the management of conservation lands and protected species. It is, however, likely to be useful to all land managers who currently use or would consider the use of toxic baits to deal with animal pests; the Department expects, and welcomes its use by a wide range of agencies and individuals who have similar pest problems, or a need to understand the toxicology and safety issues associated with the use of vertebrate pesticides.

The 'Vertebrate pesticide toxicology manual (poisons)' contains details from the most recently published scientific data on the effects and impacts of specific poisons on the environment, target, and non-target species. This document should be used in conjunction with other documents such as the Department of Conservation's 'National possum control plan'. We urge all users to acknowledge, however, that it can only be their personal responsibility to remain up-to-date in all aspects of law and current best practice in the use of these tools. If in any doubt, seek advice!

Please note that this manual has been compiled independently of the Department of Conservation's Quality Conservation Management (QCM) process, but should be used in conjunction with the proposed Animal Pest QCM. The emphasis in this edition is similar to that in the first edition. Those poisons used widely are reviewed in considerable depth, e.g. 1080, cyanide, brodifacoum, and cholecalciferol. Some, but less complete, information is provided on other poisons and those no longer used in New Zealand.

We trust that this manual when used in conjunction with the Animal Pest QCM will provide clear and concise information on the planning, use, and effects of poisons for animal pest control. Suggestions for the improvement of this manual are welcome.

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