

Smarter Pest Control: Tools and Strategies

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Conventional control target single species and is sometimes associated with non-target impacts, welfare concerns, fluctuating pest numbers and unexpected ecological consequences. Smart Pest Control (SPC) is defined here as humane, cost-effective multi-species mammalian pest control. There are significant opportunities for more effective control with reduced side effects. We will describe the development of new formulations and new vertebrate pesticides as part of an emerging product development and registration pipeline. New baits are being developed for safer, humane and more effective control of rodents and other vertebrate pests. Advances in monitoring techniques for pest and non-target species ranging from molecular tools through to “wax-tags” and “camera trapping” represent additional outcomes that will be useful as research tools and in advancing more cost-effective management practices. We have produced low residue, multi-species paste and solid cereal baits with different toxins including zinc phosphide, 1080, cholecalciferol, low dose cholecalciferol and coumatetralyl and diphacinone for mice, rats and possums. None of these baits, bar 1080, cause secondary poisoning. At the project level, our work has undergone a shift from the laboratory and cage trials to field trials.