

**CONNOVATION RESEARCH QUARTERLY MONTHLY
REPORT- 1st July- 30th September 2008**

HIGHLIGHTS AND ACHIEVEMENTS: -

- 1. CHOLECALCIFEROL FOR MULTISPECIES CONTROL.** Brodifacoum has been the only effective alternative to 1080 registered for possum and rodent control. This is no longer the case. Earlier in 2008 we submitted cage and field trial data and applied to extend the registration of Feracol® our paste product containing cholecalciferol so that it is approved for rodents as well as possums. We obtained product registration in July from the NZFSA.

received encouraging feedback. For example from the Biosecurity Managers meeting on the 5th September in Auckland. *'The research and development projects which you are currently operating have identified a range of new toxins and delivery systems which will, when they become available, provide valuable additions to our pest management arsenal. We note that these not only have the potential to have high efficacy but also may achieve high standards in terms of humaneness and environmental safety. These factors are very important to us.'*
- 2. ADVANCING PAPP FOR STOAT CONTROL.** Exciting results have been obtained in the first large scale field trials of para-aminopropiophenone (PAPP) for stoat control at Waitutu with a > 80% kill. DoC collaborators were very pleased with the outcome. Solid efficacy data to support registrations has been produced.
- 3. On 9th September an audit interview on our Foundation Research Science and Technology (FRST) programme was completed with an international expert panel. It focused on progress and achievements in the programme which is shared with Lincoln University entitled "Smart Pest Control". It was graded as "Excellent". The score of excellent reflects good progress in the development and registration of multi-species baits and alternatives to 1080. Only 3 programmes out of 15 in the "Ecosystems Portfolio" were ranked excellent and 2 of these were from Lincoln University.**
- 4. Extensive networking, linked to the FRST bidding cycle was completed during September. At each meeting we**
- 5. New FRST research grants concept documents were drafted with Lincoln University and completed in mid-September. To extend the "Smart Pest Control" programme a concept document was prepared with Landcare Research. A second entitled "Pest Control for the 21st century" has been submitted on 15th September by Lincoln University with Connovation Ltd as key partners.**
- 6. We continue to progress the registration of Feratox® in Australia as an alternative to 1080. The next steps in terms of field research were agreed at a meeting held in Launceston, Tasmania. Field trials will continue with Strikers and alternative delivery systems to optimise targeting of wallabies and possums in plantation forestry. Planning has advanced for NZ field trials targeting wallabies building on successful pen trials with Bennett's and Dama wallabies.. We are continuing to progress cyanide as an alternative for others species, such as ferrets.**
- 7. Contract reports for Herbivore Repellents and Feratox® for control of Bennett's wallabies were submitted to DPIW. The wallaby report will be**

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important for Feratox® registration in Australia and NZ.

humane, low residue, multispecies control tools".

8. The chemistry and manufacturing registration of welfare and efficacy dossiers for PAPP has been completed for submission to NZFSA and filing continues with APVMA with our Australian partners.

9. In collaboration with PestTech the Zinc Phosphide registration with the NZFSA has advanced very significantly and APVMA assessment evaluation has been successfully completed. The next stage is approval through ERMA.

10. Excellent progress was made in plotting the elimination of sub-lethal doses of diphacinone by Steve Hix and veterinarian Dr Don Arthur, confirming the rapid elimination of diphacinone in pig with liver concentrations on or close to the analytical limit after 4- 6 weeks.

11. A co-authored report on camel control was completed with IA-CRC.

12. Charles Eason was an invited speaker at the New Zealand Biosecurity Instate NETS conference in Hamilton 23-25th July; and Steve Hix, Ray Henderson, Shaun Ogilvie Charles Eason and Lyn Nicholls were invited speakers at the New Zealand PestNET conference at Lincoln University on the 28-29th August. Six posters were also presented to highlight our product development research and new and existing product performance.

Conference presentations and reports completed July to September by the research team:-

New Zealand Biosecurity Institute - National Educational Training Seminar (NETS) 23-25th July 2008, Hamilton NZ.

Charles Eason, Shaun Ogilvie, Duncan MacMorran, Steve Hix, Lee Shapiro Ray Henderson, Aroha Miller and Elaine Murphy. (2008). "Extending the use of

New Zealand PestNet conference 28-29th August 2008, Lincoln NZ

Presentations at Pestnet

Charles Eason, Shaun Ogilvie, Duncan MacMorran, Steve Hix, Lee Shapiro Miller and Elaine Murphy. (2008). "*Extending the use of humane, low residue tools*"

Steve Hix, Lee Shapiro, Duncan MacMorran, Charles Eason and Elaine Murphy. "*PAPP performance in field trials*".

Shaun Ogilvie and Charles Eason "*Smart Large Scale Multiple-Species Vertebrate Pest Control*".

Ray Henderson, Charles Eason, Jeanette Drysdale, Steve Hix, Duncan MacMorran. "*Advancing the registration of zinc phosphide*".

Posters for PestNet.

Eason CT; Hix S; Wilson L; Baigent D; MacMorran D. *Toxicity of cholecalciferol to rats in multi-species baits.*

Henderson R; Eason CT; Ogilvie S; Miller A; Shapiro L; Hix S; MacMorran D. *Multispecies baits for improved ecological outcomes.*

Henderson R; Eason CT; Ogilvie S; Shapiro L, Hix S; MacMorran D. (2008). *Toxicity of zinc phosphide in paste baits to mice, rats, and possums.*

Eason CT; Henderson R; Eason CT; Ogilvie S; Shapiro L; Hix S; MacMorran D. *Developing alternatives to brodifacoum baits - why and how?*

Eason CT; Ogilvie S; Miller A; Shapiro L; Hix S; MacMorran D and Murphy E. *Humane toxins the best of the old and the new.*

Eason CT; Ogilvie S; Shapiro L; Hix S; MacMorran D. *RatAbate baits a low residue alternative for rodent control.*



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Additional Presentations

Eason et al "Pest Control for the 21 st Century: tangible technologies"
Auckland Regional Council 5/9/09. New Zealand Regional Council Biosecurity Managers.

Reports completed July to October by the research team:-

Steve Hix, Lee Shapiro, Duncan MacMorran, Charles Eason (2008) Bait palatability and effectiveness of Feratox® in cage trials on Bennett's wallabies. Connovation Research Report pp 15.

Steve Hix, Lee Shapiro, Duncan MacMorran, Charles Eason (2008) Risk analysis based on PAPP residue concentrations on weka at post mortem. Connovation Research Report pp 15.

FRST Terminating Contract (2009) Evidence Portfolio Smart Large Scale Multiple-Species Vertebrate Pest Control pp 28.

Lapidge, S.J., Eason, C.T. and Humphrys, S.T. (2008). A review of chemical, biological and fertility control options for the camel in Australia. Invasive Animals CRC, Adelaide pp 51.

Steve Hix, Lee Shapiro, Duncan MacMorran, Charles Eason. Bait palatability and effectiveness of Feratox® in cage trials on Bennett's wallabies. Connovation Report pp 15

Lee Shapiro, Steve Hix, Duncan MacMorran, Paul Aylett, Charles Eason. Final Herbivore Repellent Report
Connovation Report pp 13.