



Industry Update Spring 2002

Pestoff is the Registered Trade Mark of Animal Control Products Ltd, 408 Heads Road, Wanganui, New Zealand

RAOUL ISLAND RESTORATION MUCH CLOSER

Nearly two decades after the last goats were eradicated from Raoul Island, the Department of Conservation has carried out a rat eradication operation on Raoul and is well down the track towards ridding the island of the last few remaining feral cats.



Helicopter bucket being loaded with Pestoff Rodent Bait 20R during rat eradication on Raoul. Photo by Mike Ambrose.

This is a significant part of a program aimed at restoring the original ecological values of Raoul. The eradication of exotic plants is the other major part of the program and is expected to take several more years. After last winter's successful "practice run" on Mayor Island (Tuhua) which has similar geology, topography, vegetation and had similar pest species, 53

tonnes of **Pestoff Rodent Bait 20R** were aerielly broadcast over Raoul by Lakeland Helicopters Ltd working in conjunction with EPRO Ltd of Taupo. For DOC program manager Mike Ambrose, what could have been a logistical nightmare turned out to be a well run operation due to good weather, excellent planning and solid support from the various companies involved.

Two applications of bait 5 days apart covered the island with a total of 12 kilograms of bait per hectare. Within a few days dead rats were everywhere according to Mike Ambrose.

As occurred also on Mayor Island, dead cats, killed by secondary brodifacoum poisoning, began turning up soon after the bait drops and some cats were even eating the cereal bait – evidenced by green cat scats found on a remote part of the island. Cat eradication work on Raoul will continue for several more weeks using ACP's recently registered **0.1% 1080 Feral Cat Bait**.

NEW FERAL CAT BAIT REGISTRATION

In June this year, Animal Control Products Ltd obtained MAF approval under the ACVM Act to manufacture and sell 0.1% 1080 Feral Cat Bait containing polymer binders.

The new formulation comes from nearly two years of manufacturing trials, bait stability testing, palatability and efficacy trials carried out in conjunction with the Department of Conservation and Bait-Tek Inc. of Texas.

This bait was originally imported from Du Pont in the USA and Bait-Tek subsequently purchased manufacturing equipment and formulation details from Du Pont. It is especially suitable for feral cat control because of its softness and water resistant qualities. It has shown no significant decline in toxicity over 9 months of storage. This is a Restricted Use Pesticide, which is available only to the Department of Conservation.

SAFETY DATA SHEETS AVAILABLE ON WEB

Safety Data Sheets for all of ACP's registered products are available in PDF format via the ACP web site (see address opposite). These Safety Data Sheets follow the new standard heading format approved by the NZ Chemical Industry Council and likely to be adopted under new legislation. To get Safety Data Sheets for ACP products, click this tab on the ACP web site:

Datasheets

Animal Control Products Ltd Important Contact Information

Wanganui Office Phone	64 6 344 5302
Wanganui Office Fax	64 6 344 2260
Waimate Factory Phone	64 3 689 8367
Waimate Factory Fax	64 3 689 8804
Bill Simmons Mobile	64 25 798 318
Web Site : http://www.pestoff.co.nz/	*****
E-mail address: info@pestoff.co.nz	*****
Safety Data Sheets: http://www.pestoff.co.nz/msdpage.htm	*****

FINDINGS AND RECOMMENDATIONS BRODIFACOUM EXPERT WORKING GROUP

Following a meeting in March 2002 when issues surrounding the use of brodifacoum were discussed by stakeholders, MAF officials convened an "Expert Working Group" (EWG) which reviewed information on brodifacoum and advised MAF on issues and solutions for managing any perceived problems surrounding brodifacoum use for pest control – in particular the occurrence of brodifacoum in some feral pigs processed for domestic consumption or for export.

The expert working group was represented by **Animal Control Products**, MAF Food, MAF Animal Products, MAF Biosecurity, ERMA NZ, Department of Conservation, Landcare Research, game meat processors, the Game Meat Industry Board, Ministry of Health, National Possum Control Agencies, pest control contractors, regional councils and Federated Farmers.

The EWG took the view that banning brodifacoum based products would be unwarranted at this time because of the lack of robust information relating to residue cause and effect. No quantitative information is available to show whether there is any correlation between patterns of brodifacoum use (especially for possum control) and the occurrence of brodifacoum residues in feral game or other organisms. Investigative research on this topic was recommended by the group.

The group collectively acknowledged the importance of brodifacoum as a possum control tool; in particular:

- The relatively low hazard of brodifacoum to pest operators
- The suitability of brodifacoum as a follow-up control tool for land owners



The Expert Working Group acknowledged the importance of brodifacoum as a possum control tool

- The ability of brodifacoum to control possums at low levels for sustained periods without inducing bait shyness
- The comparatively low risk brodifacoum presents to the public and pets – enabling its use in areas where acute toxins would be unacceptable
- The availability of an antidote for brodifacoum for both humans and companion animals
- The importance of brodifacoum for rodent control on offshore islands.

The final draft of the EWG paper and recommendations has now been submitted to the New Zealand Food Safety Authority for a final decision on precisely how brodifacoum use is to be managed.

Past suggestions that brodifacoum products should be restricted use pesticides and available to licenced users only were not supported by the EWG.

Measures recommended by the group include:

- Better product information being given to brodifacoum users, both within the product label and by way of a brochure accompanying the product.
- Mandatory warning signage to ensure that hunters are aware where brodifacoum is being used for possum control
- Notification of brodifacoum usage to regional councils so that a database may be available to hunters
- Education for hunters on the risks of consuming feral game containing brodifacoum
- QA programs for pest controllers regarding the correct use of brodifacoum
 - A publicity campaign with emphasis targeting key groups, including farmers and hunters.

The EWG agreed that these suggested solutions should be regarded as interim steps only until further research can be carried out on both the areas of cause and effect.

MAF's review of brodifacoum began in June 1999 at which time ACP made submissions to the Pesticides Board proposing that the above measures should be implemented.



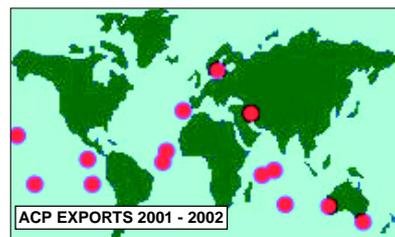
NEWS BRIEFS

PELLET LIFE TRIALS

Questions have been raised regarding the rate of 1080 loss from the larger 20 mm diameter pellets following a relatively dry winter in Marlborough. RS5 20 mm baits with an original loading of 0.15% 1080 had a residual 1080 loading of 0.0032% after 170 mm of rain. Although this is consistent with past studies by Landcare Research, trials are planned to compare 1080 loss between different sized baits. See *New Zealand Journal of Agricultural Research 1995, Vol. 38: 529-531*

ACP EXPORTS UP

International demand for Pestoff products has increased significantly over the past year; particularly for



rodenticide products. One overseas client has described Pestoff Rodent Blocks as being "second to none".

1080 RESISTANT POSSUMS

Many experienced possum trappers speak of different "races" of possums occurring in New Zealand – based on size and colouration. This is even more noticeable in Australian possums whose colour, size, features and diet change from one region to another. We also know that some Australian possums eat plants containing natural fluoroacetate (1080). New Zealand's possum population originated from eastern Australia and from Tasmania where there are very few 1080 bearing plants. The LD50 for these possums is about 1.3 mg/kg. Recent data from Australia shows that possums from the many regions of Australia where 1080 bearing plants occur have an LD50 for 1080 of 117.5 mg/kg. Had these 1080 resistant possums been brought to New Zealand, a lethal dose would be a single 12 gram bait loaded at around 15% 1080 compared with the 0.15% loading currently being used! Needless to say, under these circumstances, 1080 would not be the effective tool it has been for controlling possums over large areas of New Zealand's remote terrain.

ANIMAL HEALTH BOARD'S NEW CEO DESIGNATE

Mr William McCook has been appointed to the position of Chief Executive Officer of the Animal Health Board, responsible for the eradication of bovine tuberculosis. His appointment follows the resignation of Mr Robert Isbister who has held the position for 12 years.

AHB Chairman John Dalziell says Mr McCook will bring to the AHB a broad background of experience in both the private and the public sectors.

For the last two years Mr McCook has been General Manager of Operations at the Land Transport Safety Authority in Wellington. Prior to that he was General Manager at Donaghys Industries Limited in Christchurch.

He holds a Bachelor of Engineering from Canterbury University and a Post Graduate Diploma in Dairy Science and Technology from Massey University.

Mr Dalziell says that with the expansion of AHB's programmes to eradicate bovine Tb, and restructuring of many of its business arrangements, Mr McCook will step into a challenging role.

"We have before us the very challenging objective of achieving freedom from bovine Tb for New Zealand by the year 2013. Our funders have agreed to major increases in expenditure, mostly on possum control, to achieve this. We have also recently begun the process of putting our disease control service arrangements onto a contestable business footing."

"These circumstances present a unique management challenge. Mr McCook has the right experience from both the commercial and regulatory environments. We look forward to working with him in responding to this challenge."

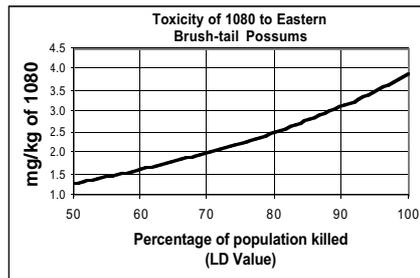
RABBIT NEWS

The rabbits in Central Otago have certainly made a come-back despite the continued presence of RHD. At the right time of day, travelers pausing on the road between Hawea and Cromwell can see a rabbit head poking out of every burrow. Otago Regional Pest Services Area Manager Peter Preston says he has been extremely busy with rabbit control this year and has applied hundreds of tonnes of 1080 carrots by aircraft with extremely pleasing results. Rabbits in the district are seeing 1080 carrot for the first time in many years and results have been "spectacular" Peter Preston said.

POPULARITY OF LARGER 1080 PELLETS CONTINUES TO GROW

Twenty millimeter diameter, 12 gram (approximately) pellets are fast becoming the most popular bait for aerial 1080 operations as the string of successful operations grows longer.

While some recreational hunters opposed to 1080 poisoning hold the view that the larger pellets are designed to kill deer, the truth is that *only* these baits, when loaded at 0.15% 1080,



successfully deliver a lethal dose for the largest possums at LD₁₀₀ level in a single bait. In other words, 100% of the individuals in any possum population will receive a lethal dose if they eat a single pellet.

The reason why 20 mm 1080 pellets have been so successful is easy to see when we do the maths.

Recent information shows that while the LD₅₀ for possums may be 1.3 mg/kg of body weight, the dose required to kill every individual in a population (LD₁₀₀) may be as high as 4 mg/kg. Therefore a possum weighing 3 kg would need 12 mg of 1080 or at least 8 grams of bait loaded at 0.15% 1080 for a guaranteed lethal dose.

This suggests that where a proportion of the a possum population has individuals up to 3 kg in weight, the standard 6-7 gram bait will be inadequate unless there is a very good chance of these larger individuals

fining and eating more than one bait before the onset of sickness behaviour associated with poisoning symptoms. Of course the trend towards lower sowing rates decreases the odds of possums finding two baits, as does increasing bait size.

The important point to emerge from this is that the first bait encountered by a possum should, on its own, represent a guaranteed lethal dose for that possum.

This strongly suggests that for any possum population with individuals weighing more than 2.5 kg, the best insurance against operation failure is the use of larger pellets.

Under tight performance targets, even an operation with a percentage kill in the high 90's could fail due to a few large possums which, because of their size, do not receive a lethal dose.

For a guaranteed lethal dose with pellets loaded at 0.15% 1080, possums in the larger weight ranges would have to eat the corresponding number of pellets shown in the table below.

No. of 0.15% 1080 baits required for a lethal dose for 100% of a population where largest possums are of a specified weight

Bait Weight (g)	Possum Weight (kg)		
	2.5	3	3.5
1.9	3.5	4.2	4.9
3.5	1.9	2.3	2.7
7.9	0.8	1.0	1.2
11.9	0.6	0.7	0.8



20mm 11.9 g 16mm 7.9 g 12mm 3.5 g 10mm 1.9 g

PROTEST ACTION ARRESTED

Proposed court action aimed at stopping the use of 1080 poison in the Upper Hutt – Kaitoke area will no longer proceed due to the anti-1080 group's lawyer having been arrested on kidnapping charges following discovery of a bunker by two Wellington Regional Council staff members in the Rimutaka Forest Park. The anti-1080 group alleged that the Wellington Regional Council and DOC were acting in violation of the Wildlife Act 1953 by sowing 1080 poison and therefore killing

native birds with intent. WRC argued that its work is done to protect native species, not to harm them – and therefore there is no intent. The group's lawyer had agreed to take payment for representing the group only if the court action was successful. Group spokesman Lester Phelps said that the action had been abandoned because it had not been possible to find another lawyer prepared to do the work on the same terms.

OPERATION EGMONT RESULTS EXCELLENT

Possum control over 33,000 hectares of Egmont National Park and adjoining lands is well underway with DOC having completed 90% of the aerial 1080 work using a one-shot application of 0.15% 1080, double cinnamon lured, 7 gram pellets.

Sowing rates were 3 kg/ha on the upper slopes and 5 kg/ha in the lowland forest due to a rhodamine B trial prior to the operation showing that 5 kg/ha was necessary to achieve a 90% plus bait take in the lowland forest.

DOC's contractors have already begun working the 120 trap catch monitoring lines over the various strata.

Initial results for the eastern side of the main cone from 720 trap/nights shows a residual trap catch of 0.5% - much lower than was achieved during a similar aerial operation carried out seven years ago.

The bait was applied by Wanganui Aero Work Ltd using B2 Squirrel and Hughes 500D helicopters.

For the next stage of the operation, the Taranaki Regional Council intends letting contracts for ground based possum control over the privately owned land extending 2 – 3 kilometers outwards from the Egmont National Park Boundary.

Most of the land on the Taranaki ring plain has been under a farmer self help program for 10 or more years and possums have been held at low levels on most properties using ACP's phosphorus paste bait applied in pots, cyanide and traps.

1080 REVIEW

The Hazardous Substances Standing Committee of the Environmental Risk Management Authority has agreed that there are grounds for a re-assessment of 1080 under section 62(1) of the HASNO Act based on:

- Significant new information relating to the effects of 1080
- Significant change in the quantity imported
- Additional grounds for re-assessment related to issues of public concern relating to the use of 1080.

The Department of Conservation and Animal Health Board lodged the application for re-assessment in February 2002. Collation of data to support re-assessment and development of consultative documents is being led by project managers URS New Zealand Ltd reporting to DOC and AHB.

The National Registration Authority (NRA) in Australia has also initiated a review of 1080 products. The assessment period began in August 2002 and a draft report will be released for public comment at the end of 2003. The areas specifically being looked at by the NRA include the persistence of 1080 in baits and poisoned animals, non-target effects, poisoning incidents associated with 1080, the effectiveness of 1080 in vertebrate pest control, its role in environmental protection, animal welfare concerns and product support information including labeling. The NRA's final report is expected to be available in mid 2004.

OF 1080, SCIENCE AND HIDDEN AGENDAS

Many people have genuine concerns about pesticides and we accept that this is reasonable - in the same way that it is reasonable for some people to have concerns about the effect of possums on native species and ecosystems or beef, dairy and venison exports.

Decades of documented research on the chemistry, toxicology, environmental persistence, non-target effects and other aspects of 1080 poison have provided New Zealand with a sound basis from which to make judgements on whether the benefits of using 1080 are likely to outweigh any risks. Indeed there is clear evidence in most cases that the risks are not only very small and short term, but the benefits are both huge and long lasting.

While the number of success stories from both DOC and AHB funded 1080 operations continues to grow, critics continue saying things to discredit 1080 use: "*the bush went silent*" is a favourite. This type of unqualified and unsupported statement is nothing but a blatant attempt to gain public support for a hidden agenda. And many hidden agendas there seem to be! Anti-1080 sentiment is too often used as a means for gaining ground on other issues like hunting opportunities, employment, land use, government policy and other totally unrelated matters.

While on-going research continues to swell the science journals with good information on 1080, there remains a pressing need to promote the benefits of responsible 1080 use.



PESTOFF® RODENT BAIT: Proven in over 20 successful rodent eradication operations on offshore islands around New Zealand and overseas.

PESTOFF® RODENT BLOCKS: The most effective securable block bait in studies carried out by Lincoln University. The choice of professionals.



POSTAGE PAID WANGANUI



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