

ANIMAL CONTROL PRODUCTS

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INDUSTRY UPDATE

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THE BATTLE FOR OUR BIRDS

The first phase of DOC's epic battle to save many of our forest dwelling bird species from certain extinction has recently been fought on carefully selected sites over both main islands.

More than 1700 tonnes of cereal pellet baits manufactured by ACP were distributed over 700 thousand hectares in a huge counterstrike against predatory pests, on an unprecedented scale.

This was a massive ramping up of effort by DOC with the total area treated being more than 5 times the area treated by aerial baiting over each of the previous 3 years.

The focus was on sites occupied by North Island brown kiwi, great spotted kiwi, whio, mohua, orange-fronted kakariki, the rock wren (tuke), kaka, kea, the Haast tokoeka, short and long-tailed bats as well as many of the more common bird species which are susceptible to predation.

Most of the operations were designed and timed to maximise disruption to the predicted plague of mice, rats and stoats in the 2014/15 summer following the heavy seeding of beech trees (mast event) at the beginning of 2014. Pest knockdowns were also generally timed to maximise protection for birds during their nesting and fledgling periods; a time when they are most vulnerable.

Post-operational assessments of pest abundance produced results showing a rapid decline in predator presence following the toxic bait application, with almost immediate benefits for the birds and other species at risk.

DOC biodiversity ranger Colin Bishop of Invercargill advised that rodent and stoat monitoring in the 30,000 hectare Waitutu Forest showed huge declines in rodent and stoat numbers after the aerial



HAWDEN VALLEY AERIAL 1080 OPERATION, CANTERBURY. PHOTO BY DEAN TURNER

operation. Post operational monitoring at Waitutu also detected only one possum over 1350 trap nights compared with up to 22% trap catch prior to the operation. This is a very impressive, near perfect result!

WAITUTU FOREST - MONITORING

	Before 1080	After 1080
Mice	70%	17%
Rats	22%	0%
Stoats	40%	0%
Possums	22%	0.07%

The huge volumes of bait required by these operations saw ACP's production levels reach a record 30 tonnes of cereal pellets per day, with up to eight truck & trailer unit loads of bait being dispatched each week.

Good forward planning and regular communication between ACP and DOC at both national office and field level, combined with the dedicated freight service provided by JJ Nolan Ltd, meant that the

overall operation ran like clockwork.

Early advice on bait orders ensured there were no delays in getting bait manufactured and delivered to locations from Dargaville in the north to Te Anau in the south.

DOC staff worked well in excess of their normal hours to manage these operations and unload bait arriving after work and on weekend. ACP staff similarly committed many hours of their own time from May until November to ensure bait was made and delivered on schedule. Weather was therefore the only major cause of operational delays.

In addition to the great benefits the campaign provided to the survival and productivity of many native species, the success of the programme demonstrated that the various agencies involved could easily manage a similar-sized programme again if it was continued at similar levels. Current estimates suggest that DOC will be treating approximately 200,000 hectares of forest by aerial baiting during the 2015/2016 financial year.

SOUTHLAND POSSUM CONTROL NOW COVERS 196,000 HECTARES

Annual possum control has become a routine part of farm management for much of Southland as farmers continue applying pressure to ensure possums are kept at low levels.

The trend of farmers taking responsibility for managing pests on their own properties, is now reaching into eastern Southland, as the area under control has grown to cover 196,000 hectares within 30 separate Possum Control Areas (PCA's).

Landowners have realised that by adopting a collaborative approach to possum control, a minimum amount of effort is required by individual landowners as there are no uncontrolled populations which might otherwise re-invade treated areas

Pestoff Brodifacoum Possum Bait plays a key role in helping to maintain low background numbers of possums and extend the gains following past ground and aerial based possum control contracts funded by TBfree.

Farmer Bruce Hamilton of Winton said



Dave Burgess, Environment Southland

"The bird life is also more prolific than it was 10 years ago, with large numbers of pigeons living here."

While possums have been the focus of the programme, some farmers are keen to improve the biodiversity benefits by also targeting rats, stoats, ferrets, feral cats and magpies.

Environment Southland's Senior Biosecurity Officer Dave Burgess says council is actively backing the programme, undertaking monitoring and providing advice.

RECONNECTING NORTHLAND HELPS RESTORE WARAWARA FOREST

The Warawara forest north of the Hokianga Harbour in Northland, comprises 9,500 hectares of contiguous native forest under both private and public ownership.

This jewel of the Northland Region, Warawara forms a special part of New Zealand's unique biodiversity and rich local history. It is the last stronghold of the native rifleman in Northland.

The entire forest will soon be subjected to an aerial and ground-based attack on possums, rats and stoats - thanks to collaboration between DOC, Northland Regional Council and the local community.

Mike Knight, Northland Regional Council co-ordinator for the project has re-

ported "Initially, local people will carry out fur recovery operations on the more accessible outer areas of forest."

"Then, during winter 2015, DOC will carry out aerial 1080 baiting over the conservation land at the remote centre of the forest and four full-time trappers will be employed to run a 1080 bait station operation in the forests surrounding the aerial treatment area," he said.

The trappers' wages will be paid using grants obtained through Reconnecting Northland while the Northland Regional Council will supply all materials required by the ground operations and DOC will fund the aerial 1080 operation.

Mike Knight said that while the project will be challenging, there is a huge amount of positive feeling for it within local communities. All of the nine local marae concerned are fully supportive of the project and local Iwi Te Rarawa has also voiced its approval for the project.

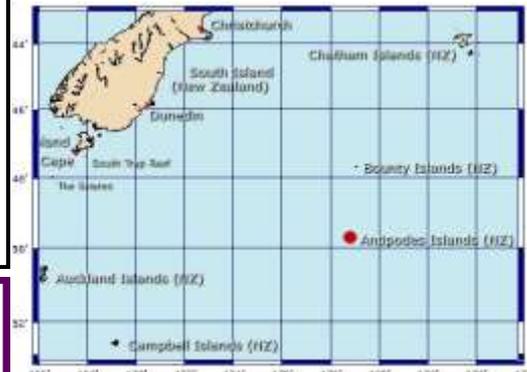


Rifleman

ANTIPODES PROJECT PLANNING UNDERWAY

Following his trips to Antarctica and the sub-Antarctic islands, well-known entrepreneur Gareth Morgan was motivated to raise \$1 million towards the eradication of mice from New Zealand's Antipodes Islands.

These ecological treasures lie 750km southeast of Dunedin. The eradication project, to be carried out by the Department of Conservation (DOC), will secure the only home of the Antipodes Island snipe and the Antipodes Island parakeet. The islands are also critical breeding habitats for Antipodean albatross, white-capped mollymawk and four species of petrel. There are also more than 20 insect species and at least 3 plants whose distribution is restricted only to these islands.



Mice are the only introduced species on the islands. They eat the eggs and chicks of seabirds and have been implicated in the deaths of albatross chicks. Mice also eat huge numbers of insects and the seeds of plants that are critical to the health of the islands.

With the generosity of the New Zealand public and other partners (with The Morgan Foundation matching contributions dollar for dollar) this massive fundraising effort has been completed. DOC is now managing the next stage of this project - logistics and planning for the eradication.

Project manager Steve Horn of DOC Invercargill advises that all going well, the eradication project will be carried out during winter of 2016 using approximately 60 tonnes of aerially applied **Pestoff Rodent Bait 20R**.

As weather will be a challenge, special packaging will be developed to ensure the bait stocks remain dry until suitable flying conditions occur.

DOC's 1080 USE IN WHANGANUI PROVES POSITIVE

The Department of Conservation began wide-scale aerial 1080 operations in Whanganui National Park and the Waitotara Conservation area about 20 years ago because these forests were under immense pressure from possums.

Aerial 1080 baiting at about 7 year intervals was considered the most effective and cost-efficient method of reducing possum populations in these rugged areas of back country and restoring the mauri or well-being of these forests by ensuring trees and shrubs were not browsed out of existence by possums. DOC's monitoring data shows that the use of aerial 1080 operations has halted the decline of those forests.

In 2008 the Department modified its treatment regime to give more sustained control of rats and stoats as well as continued control of possums. The amount of 1080 bait used per hectare per treatment has been reduced about 5 fold while the frequency of treatment has been doubled so that areas are now treated about once every three years. The three yearly treatment gives birds at least one spring/summer season of freedom from rats and about 2 seasons of freedom from stoats every three years allowing birds such as kiwi, whio, kereru, kakariki, toutouwai, tui and koromako to increase their populations.

“The largest kiwi recovery site in New Zealand.”

Monitoring is still underway but there are good indications that the populations of kiwi and other birds are now starting to recover after decades of decline. Whanganui National Park is now the largest kiwi recovery site in New Zealand. This could not have been achieved without aerial 1080 baiting.

1080 baiting for possum control does not have a significant impact on pigs. Deer are not widespread within the Whanganui forests managed by DOC.

1080 is not an accumulative toxin and like many common chemicals, it is only toxic when safe concentrations are exceeded. 1080 is water soluble and any

1080 reaching waterways is rapidly diluted to undetectable levels. More than 2000 water bodies flowing from 1080 treatment areas have been sampled for 1080 contamination. Detectable amounts of 1080 in water samples have been very rare, with no samples having 1080 levels exceeding Ministry of Health levels for safe drinking water.

Conversely many natural waterways are continuously contaminated by bacteria released into the water by pest animals such as possums, deer and goats from their urine and faeces. In natural water, 1080 is broken down by bacteria and other organisms which are able to use the molecule as an energy source.

“Effective rat and stoat control for no additional cost..”

The Department of Conservation does not deny that cost factors influence its choice of aerial 1080 baiting. Since the commencement of the pest control programme in Whanganui National Park DOC has chosen to use the pest control tool that will make its resources go furthest and to protect the largest possible area of forest in the Whanganui river headwaters. Figures illustrate that effective possum control using aerial 1080 costs a fraction of the cost of effective ground control, but the benefits of aerial control go much further. The use of aerial baiting using cereal pellets for possum control also provides effective rat control and a by-kill of stoats for no additional cost, whereas estimates for adding these additional targets to a ground based possum control operation has been estimated to increase costs by between 4 and 20 times. This is why aerial 1080 baiting was the technique chosen for DOC's "Battle for our Birds" programme carried out over recent months.

During consultation with Iwi at Pipiriki in 1995, the stark choice between effective pest control over 100% of the area using 1080 or 10% of the area using ground control led to the withdrawal of many objections when it became clear to people that the entire area needed pest control.

“It became clear that the entire area needed pest control.”

1080 is legal because it has been subjected to significant regulatory examination, scientific research and review by “watchdogs” such as the Parliamentary Commissioner for the Environment. No overwhelming reasons to abandon its use have been identified whereas many compelling reasons to continue its use remain.

The need to continue to manage pest populations is simply a fact of life in New Zealand. Any pest control operation does not usually eradicate the pest population and survivors breed to replace the losses. There is no evidence of any diminishing effectiveness of 1080 although DOC is always looking for ways to reduce the number of surviving pests left behind.

Compiled from information kindly supplied by DOC.

PROTEST ACTION

On 18 December 2014, a group of Whanganui people seeking to have 1080 banned, staged a peaceful protest outside ACP's factory and office site. This is the only such protest to occur at the site since the business was established in the late 1960's.

Local newspaper reports say the 20 or so protestors claimed 1080 poison drops carried out by DOC in Whanganui forests, their food basket, can kill deer and pigs as well as pests, while eels and trout could not be eaten after the drop. “Animals eat 1080, die and rot in the water” they said.

They also claimed the drops took away the opportunity for them to make a living through trophy hunting and trapping. The group wanted to know why 1080 had been applied so many times in the same areas and questioned whether it was working.

A spokesperson for the group said that members hoped to present their case to the Taranaki/Whanganui conservation board when it meets in February. “1080 is illegal everywhere else,” one of the group's placards incorrectly stated.

KEA REPELLENT SEARCH CONTINUES

The search continues for an effective, stable and affordable substance for adding to 1080 cereal baits, to discourage consumption of the baits by kea but without reducing the effectiveness of the baits for controlling possums and rodents.

Two trial substances, anthraquinone (also known as Avipel) and a strong peppermint-like substance known as d-pulegone, have previously been tested as potential kea repellents with mixed success. Anthraquinone was found to affect bait acceptance by rats while the instability and cost of d-pulegone limited its future as a kea repellent.

With a view to screening other substances as possible kea repellents, DOC has obtained advice from EPA on the maximum levels of tannic acid, garlic oil and 2-aminocetophenone which could be added to baits before triggering a HSNO hazardous classification.

ACP SURVEY WINNER

The winner of the 2014 ACP Customer Satisfaction Survey, winning \$250 cash, was Kane Stafford, Aerial Co-ordinator for Epro Ltd in Taupo. Of 100 customers contacted, 33 submitted valid returns.

GREAT MERCURY ISLAND RESTORATION

Great Mercury Island, known to Maori as Ahuahua, is the largest island of the Mercury Group located on the Eastern side of the Coromandel Peninsular. Six other islands within the group are reserves managed by the Department of Conservation (DOC). They all hold significant ecological values due to the lack of mammalian pests and special authority is required to visit. The presence of rats on Great Mercury was a significant concern to DOC due to the rats swimming ability and the island proximity to the DOC reserves.

The Island is owned by Sir Michael Fay and David Richwhite (Great Mercury Island Ltd), with the exception of a small public reserve administered by the DOC. The owners and DOC have formed a partnership agreement in May 2013 where both parties agreed to eradicate pests from the island with costs to be shared. Recognising that the scale of the operation would make the eradication impossible to tackle separately, the partnership sought to make Great Mercury a pest free environment capable of sup-



Bait drop on GMI: Photo by Gary Bowcock

porting self-sustaining, very significant wildlife populations which would be accessible to the public.

With this in mind, DOC undertook to rid the island of ship rats, kiore and feral cats from the island. Mice had never been detected on Great Mercury but on the balance of probabilities, they may well have been present in low numbers. Operations commenced as two aerial applications of **Pestoff Rodent Bait 20R** carried out 3 weeks apart over the 1882 hectares. Skywork Helicopters of Warkworth applied the forty tonnes of bait used for the operation, treating all land above mean high water mark. Sixty-three small named and un-named islets and rock stacks within 800m of its shoreline and totalling around 10 hectares, were also treated.

Bait application commenced in mid-July and cat trapping started shortly afterwards. Indications so far suggest that the aerial drops have killed all rats present. Four feral cats were found dead following the bait applications and a further three cats were trapped. Cat trapping concluded in early December 2014 after 2 months of no fresh cat sign being detected.



Aerial view of GMI. Photo by Pete Corson

