horizons
REGIONAL COUNCIL

16 December, 2019

PBS0106
2019 RS:MGB

Dr Wayne Severn
Senior Advisor, Agricultural Compounds
Ministry for Primary Industries
Charles Fergusson Building
34-38 Bowen Street
WELLINGTON 6140

Dear Dr Severn

CALL FOR INFORMATION ON THE USE OF BRODIFACOUM AS A VERTEBRATE TOXIC AGENT

Thank you for informing us and other stakeholders of your intent to re-assess brodifacoum. We look forward to being part of the assessment process that will permit brodifacoum to be used into the future to deliver sustainable biodiversity and biosecurity outcomes whilst minimising the risks of its use to environment and community.

The proposed re-assessment comes at a time when the Government has set a target of Predator Free NZ by 2050, and the options for community and landscape pest control available in the "toolbox" are limited, and to further restrict brodifacoum sales would reduce the opportunity for affordable and effective pest control to be undertaken on all scales. Education and training will also help ensure the effective and safe use of brodifacoum by community groups taking up the fight to protect indigenous flora and fauna.

Horizons Regional Council delivers a possum control operation that covers 1.5 million ha, approximately 70% of the region, and mostly on rateable land. Currently Horizons monitors 25% of the treatment area each year and the possum abundance is on average approximately 3.75% RTCI. This programme started in 2006/7 and each year since has provided additional control in areas that AHB and now OSPRI had completed TB operations in, and once bovine TB had been eradicated, had withdrawn their control activities. Horizons has every year since 2006-7 taken more area into our Possum Control Operation (PCO) and "maintained the gains" to ensure the production and biodiversity values that accrued from the original control were not lost. This programme has enjoyed overwhelming support from ratepayers across the region, and the cost to ratepayers this year is $4.08M ($2.72/ha). This programme is part of our delivery model for the Regional Pest Management Plan 2017-2037 established under the Biosecurity Act and delivers significant benefits for both biodiversity and production values in the region.

The methodology Horizons used is to initially deploy Philproof bait stations at approximately 1 per hectare of habitat, and then to place brodifacoum (High Strength) in the bait stations. Horizons has developed a bait station setting specification[1] to enhance bait availability to target pest animals, and to significantly reduce spillage of bait by possums. If possum abundance is initially high, two applications of toxic bait maybe applied, however for most of the PCO it is an annual application of toxin to the bait station. The old uneaten bait is removed and disposed of through a commercial chemical disposal company. Because we also may use Feratox in conjunction with brodifacoum we also get MOH approvals for all of our PCOs to ensure public health and safety concerns receive the appropriate actions, and are implemented. Our programme is developing solfware to record and further track the bait removed and to further optimise the amount of bait used and where it is used to further reduce the amount of bait used annually.

[1] Appendix One

The programme comprises of over 140 areas, each individual area is modelled to determine possum density using a model developed by Landcare Research. This modelling is used to prioritise areas where control is and is not required annually. In 2019, 35 percent of areas are not receiving bait.

The proposed controls outlined in the MPI submissions document, if adopted and implemented could more than double the cost of our programme, or conversely reduce the area we can manage by 50-65% for the same collection of ratepayer funding. This is projected to have significant impact on the programme's effectiveness and ability to sustain low possum numbers. Essentially we forecast not being able to main the gains of the existing programme.

For Horizons, we have concerns with the proposed regulations that relate to bait stations, monitoring, and the new requirement to remove bait stations once monitoring of bait stations has concluded. Our current programme activity is to visit the bait station and apply 400 grams of brodifacoum (hi strength) pellets. We clean out the bait stations when we visit next which in many cases is the following year, and the old remaining bait is removed for disposal. We are collecting about 30-35% of the bait when we return to rebait the stations, and the condition of the bait is usually in one joined block of bait (unable to accidentally exit the bait station), and unpalatable due humidity deteriorating the bait structure. This collected toxin product is disposed of through Waste Management Technical Services in accordance with the guidance on the label.

We currently have approximately 150,000 bait stations permanently in situ, each of these have their individual positions recorded in our GIS system, they are set 2 m above ground to a standard that focuses on bait security, exclusion to livestock and feral ungulates, whilst retaining accessibility for the target species. We revised this standard recently to further reduce any likelihood of interference from farm stock and feral ungulates, improve accessibility for target species, and to keep them out of reach of children. This standard is also enforced with our contractors who currently deliver possum control across 35% of our PCO programme (52,500 bait stations). Our staff assess conditions and placement of bait stations as a standard practice when filling bait stations. Old bait stations are replaced and security of the bait stations are checked. This further enhances the security of bait and we also perform audits.

If our staff are required to revisit the bait stations to monitor bait consumption and then remove the bait station only to put it back in the same location the following year, it will have a significant impact on our possum control programme. Preliminary calculations indicate that to abide by the proposed regulations would increase our cost per bait station from $34 to $85, an increase of 250%. To provide the same level of service that we are providing now, our current programme cost would grow from $4.08M to $10.2M, or we would have to reduce our programme from 150,000 bait stations down to 48,000, a 68% reduction in control.

According to our analysis of the annual "NZ Chemical Residues Programme Report" over the last five years, there has only been one detection of brodifacoum[2], this was in an outdoors field setting which did not pose a food safety risk. Considering the extensive use of brodifacoum in landscape pest control operations using bait stations, and only one detection in five years, we would respectively suggest that education and training will be successful at improving the safe use of an important and effective toxin for pest control across New Zealand. The removing and replacing bait stations each year will in our opinion not meaningfully contribute to less opportunity for brodifacoum to enter the environment, however will add significant costs to existing pest control programmes.

We would recommend that any brodifacoum used on a commercial property for the provision of food products, only be applied by a trained and qualified person. The training would focus on best practice for bait station set up, animal welfare, residue pathways, and other mitigations to prevent brodifacoum entering the food chain. We would recommend that the training content and delivery be in collaboration with all stakeholders and delivered through Bionet.

As an agency we are open to new approaches to possum control and are assessing other tools for the toolbox, including alternate baits. At this stage our assessment is that responsible brodifacoum

[2] https://www.mpi.govt.nz/dmsdocument/32806-results-for-1-july-2017-30-june-2018

use is essential tool for a programme that operates across the region as Horizons does. We are seeking to be able to continue to use this important tool in a responsible manner as we currently do into the future.

Public User Proposals

The public user proposals will seriously restrict community conservation carried out by groups of caring individuals who are volunteering their time and effort to help protect our flora and fauna. There are some community projects that are at landscape level and restricting bait to purchases of 300 grams is wasteful and adds unnecessary tasks to these projects that will have little or no benefit to public health concerns. The weekly checking of bait stations by this group of users could actually inhibit such projects in the future getting underway due to the weekly commitment required. We are seeking changes to the proposal that take a more education based approach and offer the Vespex wasp tutorial type approach as a model to consider.

Professional User

The proposed restriction to pack sizes less than 100 kg for professional users will not increase safety or decrease the risk with these users who are "professionals", who generally all have CSLs (Controlled Substance Licence), and in most cases been vetted and audited by the organisations whom contract them to deliver pest control. Many of these pest control contracts are of landscape scale and limiting these users will only add unnecessary expense and delays in achieving completion of control operations. In our situation our contractors are required to use our bait station set up guidelines, and we audit on a regular basis to ensure they are delivering to those specifications. We have attached our bait station specifications that our staff and contractors all follow.

The 100 kg pack size is somewhat restrictive and inefficient for a large scale programme and we are seeking changes to be able to enable large scale programmes to continue to purchase larger packs.

Summary

- There is no problem statement with the request for submissions, and there should at least be an introduction outlining the issues for which solutions are being sought. Without such information a robust cost benefit analysis cannot be undertaken, and buy in from the pest control stakeholders will be difficult to obtain. We need the issues identified and then as an industry we can apply our collective resources to further developing modern robust protocols that will allow for safe use of the various toxins, maintain and strengthen the social licence to use them, and still be able to use them with our communities, contractors, and staff to protect our valuable indigenous biodiversity, and our biosecurity interests.
- The proposed controls outlined in the MPI submissions document could well more than double the cost of the Horizons Regional Council programme, or conversely reduce the area we can manage by 50-65% for the same collection of rates. This cost in our view would be for no or a very marginal gain in bait security.
- To provide the same level of service that we are providing now, our current programme cost would grow from $4.08M to $10.2M, or we would have to reduce our programme from 150,000 bait stations down to 48,000, a 68% reduction in control.
- According to our analysis of the annual "NZ Chemical Residues Programme Report" over the last 5 years, there has only been 1 detection of brodifacoum[3] in an outdoors setting, which did not pose a food safety risk.
- We would recommend that any brodifacoum used on a commercial property for the provision of food products, only be applied by a trained and qualified person.
- The training would focus on best practice for bait station set up, animal welfare, residue pathways, and other mitigations to prevent brodifacoum entering the food chain.
- We would recommend that the training content and delivery be in collaboration with all stakeholders and delivered through Bionet.
- Limits on amounts that can be purchased and weekly checking of bait stations by public users could actually inhibit such projects this would remove valuable volunteer effort from

[3] https://www.mpi.govt.nz/dmsdocument/32806-results-for-1-july-2017-30-june-2018

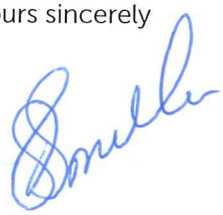
the control of predators in a range of biodiversity projects. We are seeking an approach that will continue to enable these projects to continue.

We look forward to continued collaboration on this matter to improve the safety and utilisation of tools that are available for use in the battle to protect and enhance our biodiversity and biosecurity.

We would welcome the opportunity to demonstrate our approach to possum control and to discuss this submission further.

Thank you for the opportunity to submit on this matter.

Yours sincerely



Rod Smillie
Biodiversity, Biosecurity, and Partnerships Manager

Appendix One

Horizons Bait station specifications

The use of toxins in bait stations is the main method of possum control in the Horizons Possum Control Operation (PCO). The processes around the use of stations has recently been reviewed. The aim of the review was to get a more consistent 'bait station set' in all PCO's across the Region. As a consequence of the review, all personnel involved in the PCO work (both the Horizons internal Regional Response Team and external contractors) will be required to follow the specifications when either setting up new PCO's or refilling existing bait station networks. We will be checking a random number of bait station sites when we undertake our operational audits to check the compliance with the new specifications.

Bait station protocol for 'New' set ups

1. Comply with the NPCA A13 bait station 2015-Nov guidelines
2. Bait stations are to be positioned in all areas of possum habitat in the operational area at a rate of one bait station per hectare of possum habitat.
3. No stations are to be no closer than 100 meters apart.
4. Bait stations are to be positioned along bush pasture margins of 'no work areas' at 150 meter intervals.
5. The stations are to set a minimum of 1.8 meters off the ground in areas grazed by domestic stock. They can be set lower in areas not grazed by stock provided this does not contravene any conditions in the VTA permit. Also landowner approval must be obtained.
6. If bait stations need to be positioned in any pine plantations please discuss the manner in which these stations will be positioned with the landowner and/or the forest manager prior to nailing any stations to the pine trees. If there are concerns about nails being left in the pine trees, it may be necessary to use 'stakes' to position the bait stations.
7. Where possible position the station in such a manner that provides the best access for possums to feed from the station. We prefer the station to be mounted sideways against the tree, however understand that there are times when this will not be possible and the station will need to be mounted from the back.
8. The station needs to be set up with the 'base plate' level in both directions. See Photos 1 & 2.
9. 90 mm jolt head nails are to be used to attach the station to the tree, the top nail is to be bent upward and the bottom nail(s) are to be bent down. The station must be firmly set i.e. it shouldn't wobble if a possum climbs over it to access bait.
10. A pink triangle must be positioned at each bait station site so that it can be seen from the direction from which the bait station site is likely to be approached from in future refills. The triangle is to be attached to the tree with a 90 mm jolt head nail as shown in photo 4.
11. If strikers or bio bags are used these need to be placed at 15 meter intervals and marked with the appropriate GPS icon, a track log must also be recorded.

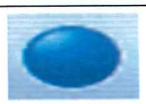
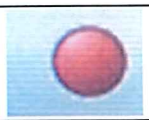
12. The tree is to be lured/blazed with Connovation 'Lure It' spray with a minimum 300mm blaze below the station; see photos 5 & 6. Cinnamon lure is to be used.
13. Mark the bait station on a GPS with the appropriate icon before moving on to the next site.

Bait station protocol for existing 'maintenance' operations.

- Comply with the NPCA A13 bait station 2015-Nov guidelines
- All station are to set a minimum of 1.8 meters off the ground in areas grazed by domestic stock. They can be set lower in areas not grazed by stock provided this does not contravene any conditions in the VTA permit. Also landowner approval must be obtained.
- Where possible position the station in such a manner that provides the best access for possums to feed from the station. We prefer the station to be mounted sideways against the tree, however understand that there are times when this will not be possible and the station will need to be mounted from the back.
- The station needs to be set up with the 'base plate' level in both directions. See photos 1 & 2.
- 90 mm jolt head nails are to be used to attach the station to the tree, the top nail is to be bent upward and the bottom nail(s) are to be bent down. The station must be firmly set i.e. it shouldn't wobble if a possum climbs over it to access bait.
- Prior to putting new bait into the station it first must be thoroughly cleaned to ensure that there is no old poison residue in the station. Any old poison material removed from the stations must be disposed of in accordance with poison label instructions.
- If there is no bait station positioned at the GPS waypoint provided, the contractor shall mark the site with the 'cross' icon indicating that the bait station has gone and /or can position a new bait station in habitat near the old GPS site (within 100 meters) and mark the new set up with the blue flag icon.
- A pink triangle must be positioned at each bait station site so that it can be seen from the direction from which the bait station site is likely to be approached from in future refills. The triangle is to be attached to the tree with a 90 mm jolt head nail as shown in photo 4.
- If strikers or bio bags are used these need to be placed at 15 meter intervals and marked with the appropriate GPS icon, a track log must also be recorded.
- The tree is to be lured/blazed with Connovation 'Lure It' spray with a minimum 300mm blaze below the station; see photos 5 & 6. Cinnamon lure is to be used.
- Mark the bait station on a GPS with the appropriate icon before moving on to the next site.

<u>GPS set up and recording</u>

- GPS units are to be set up in NZTM
- Daily 'track' logs must be recorded by all staff working in the control area.
- GPS icons are to be recorded at each site as shown in the table below

SYMBOL		MEANING
	blue flag	new bait station set up
	green flag	1st fill on existing bat station site
	red flag	2nd fill existing bait station site
	blue pin	1st feratox treatment
	green pin	2nd feratox treatment
	red pin	Trap sites
	cross	removed habitat/baitstation not existing
	house	dwelling/may be a VTA requirement
	blue circle	water source, may be VTA requirement
	red circle	signage, record all

- The raw GPS data (waypoints and tracks) from each staff member working on the contract is to be emailed to Horizons in GPX file on a regular basis. In addition to this, contractors have the option of sending a 'shape file' of the consolidated data through to Horizons at the same time as the raw data is sent through.

Photo 1: Base plate level on a side set (Photo J Hart)

Photo 2: Base plate level from the front view (Photo J Hart)

Photo 3: Back set, note the level base plate and 2 nails in base to prevent the station from moving (Photo J Hart)

Photo 4: Pink Triangle set up (Photo J Hart)

Photo 5: An example of a side set (Photo J Hart)

Photo 6: An example of a back set (Photo J Hart)