

WHAT'S BUZZING?

News from the World of Pest Management

**Why Rodents Are So Challenging
and Tips for Gaining Control.**

**Bobby Corrigan, Ph.D.
Urban Rodentologist**



**Mosquitoes on the rise in
Hawkes Bay**

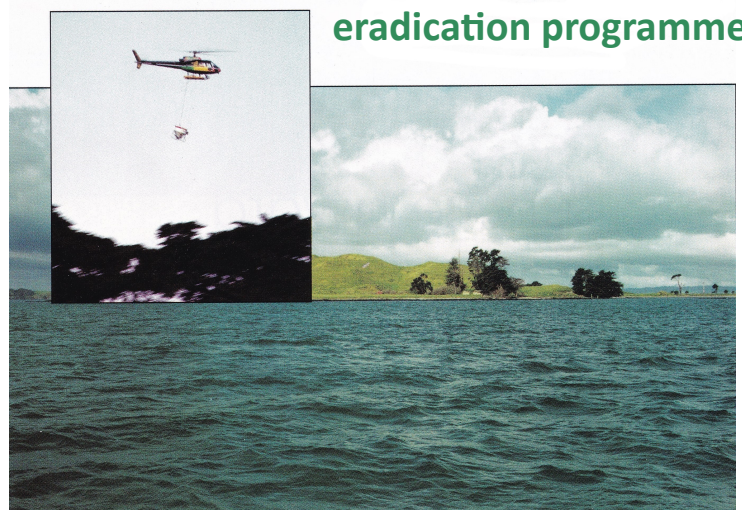


**Understanding MPI Ap-
proved Maintenance Com-
pounds (AMC's) (Non-**

Leptospirosis—What you need to know



**Rentokil supports Brown's Island 1995
eradication programme**



What's Buzzing

April 2023 Volume 16 No. 2



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Fair Dealing

Articles provided in "What's Buzzing" are drawn from a number of sources. The source of the material is always quoted, either by author, publication and/or organization, in line with the practice of 'Fair Dealing' under the [Copyright Act 1994, Section 42 \(3\)](#), which allows news reporting of current events without infringement of copyright. This news is for PMANZ members and friends of the association for their ongoing education. The information contained in this newsletter does not necessarily reflect the official views or opinions of the PMANZ Council and/or its members.



PMANZ

PO Box 133215

Eastridge, Auckland 1146

New Zealand

Free phone: 0800 476 269

(0800 4 PMANZ)

Email: info@pmanz.nz

Website: www.pmanz.nz

If summer did not arrive at your place over the last few months, you are not alone. And I'm not even going to get into the aftermath of the flooding and cyclones, save to say that the article and story about "Lepto" and Mozzies in Hawkesbury is quite a wake-up call. Read about it in New Zealand news.

One again a full Autumn issue with lots of advice about rodent management from Bobby Corrigan and our suppliers. Take heed, autumn stalks... Early indications are that the mice and rats are about, but not plentiful yet!

Wasps continue to be a pest in most parts of the country, and even set up home on a boat trailer over summer. See photo and tips for managing these ruthless pests.

The executive have been debating our constant need to ensure we dispose of our containers and other pesticides safely. Paul Chapman did some research and to help us with this messy problem.

Bifenthrin is a go-to-product for many of us, but a member had a problem from a customer that claimed he small dog was poisoned. Read more under Technician's Forum, and be mindful around pets.

For those of you who want to plan an tropical holiday and learn at the same time, PestWorld is in Hawaii this October 2023. A few of us are going, so hope to see some of you there. See full registration and accommodation details in this issue.

If you are not aware of the MPI Approved Products for Non-Dairy, Category Types for insecticides and use conditions. Get an understanding on page 21.

Finally, we have a new layout of our front pages to make it easier to navigate, with a fully clickable contents page to take you directly to the article.

Pleasant reading and Happy Easter!

Peter



Autumn Morning, Pauanui and Tairua, Coromandel, North Island



President's Pen Maihi Cooper

Kia ora PMANZ members and other interested readers,

Welcome all members, suppliers, family, friends, animals, and pets to the second edition of the PMANZ newsletter for 2023. Firstly, I would like to offer my thoughts and sympathies to all those impacted by Cyclone Gabrielle. It has been an incredibly difficult time for many and I wish you better days ahead and that you are able to rebuild your lives as quickly as possible. As we move on, please take time to reach out to those impacted and support one another as we rally together to get through this, *kia kaha*, stay strong.

The first quarter of 2023 has been and gone quickly for me and as daylight savings comes around once again so does the change in season as we head toward the colder months. Many of us around town have recently commented on the drop in temperatures and the need to add extra layers, I wonder how many layers those folks out there in the bush, stalking and enjoying the 'roar' have on, stay warm and safe!

Wherever you are it's time to get prepared for the peak of rodent activity this season. From my outlook of rodent activity across the country, March has seen increases compared to February in particular in the Lower North and South Island regions, whereby the Upper and Central North Island regions have not had the same activity level of increase, and they are lower when compared to last year. Be prepared as we expect to see a surge from now to June and I suggest you take some time to read the articles in this edition as there's some good information to help in your rodent management plans.

In this edition, I would like to shift our focus from safety towards another very important topic, 'environment'. Most pest controllers would agree and are familiar with the potential risks, hazards, and impacts that their activities can have on the environment. I thought it would be good to mention a couple of points for you to consider the next time you're completing an insecticide treatment.

The first point is; only mix the volume of chemicals that you need for the jobs for that day. Doing this will reduce the amount of chemicals that you may need to dispose of and it will save you costs. A second point is to make sure you have a plan and the equipment with you to deal with chemical spills. Depending on where you are operating you will always have a stormwater drain nearby so be mindful of where they are and handle and mix your chemicals in a way to prevent them from entering these valuable waterways.

I also encourage you to read about the 'Agrecovery' program in the technical hints, I have been a member for several years and we have recycled 100's of used insecticide containers through their collection sites, which has a huge reduction to the landfill waste,

It's that time of the year again for membership renewals and contact David to assist you with your renewal or any question you may have about the system.

Thank you for your continued membership as we look toward 2024. We will be sending out a survey to members to find out what you would like to see from PMANZ in the coming year and beyond. Please keep an eye out for this and I look forward to hearing from you.

Our new membership registrations keep coming in and again in the past 2 months, we have had 5 new members join the association which is really great that brings us to a current membership total 532.

Please join me in welcoming the following members:

New Master Registered Technicians		
Cameron	Dunn	Rentokil
Steve	Churchill	Mountain View Services
New Trainees		
Simon	Tanner	DM Services
Shane	Eagar	Pests No More
Angelique	Eagar	Pests No More

Lastly, it was great to see ongoing advertising of the FAOPMA Pest Summit in Air New Zealand Kia Ora magazine in March.

This article was a really good way to reach a wide number of interested travellers from around the globe to come to the conference being hosted by PMANZ, in 2026.

Happy Easter and remember ANZAC day.

'We will remember them'

That's all from me for now,

Ngā mihi nui,

Kind regards

Maihi

PMANZ President



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Why Rodents Are So Challenging and Tips for Gaining Control.

Bobby Corrigan, Ph.D.
Urban Rodentologist



Introduction

Over the past decade, urban rats and mice have been increasingly more troublesome on a global scale. Reports from pest professionals of rodents avoiding and or disregarding traps and bait stations, suspected bait resistance, behavioural shifts in rodents and overall chronic persistence of rodents at account sites of all sorts are common. The bottom line is current day rodent control is not anything close to business as usual. Pest professionals must be increasingly more resourceful, more innovative, more tech-savvy, and pursue rodent work with a strong drive towards higher-level assessments prior to beginning the work. In other words, there is no cookie-cutter rodent job for neither a residential stop, nor and especially, for commercial ones.

This paper discusses how “thinking outside the box” of traditional rodent control has

become the essential mandatory element needed for success.

Rodent Success in Towns, Cities and Farms

The urban rodents for most areas of the Asian and Oceanic areas of the world include: The house mouse (*Mus musculus*), the black rat (*Rattus rattus*) and the Norway rat (*Rattus norvegicus*). (Figure 1 above). Among these three it is important for us as pest professionals to consider the commonalities that enable these rodents to be so successful and persistent as pests.

Essentially, there are five factors that most heavily impact the chances of us achieving success for long-lasting control while minimizing the number of profit-killing call-backs due to ongoing activity.

Article continues on next page

These include:

1. Rodents are excellent stow-aways and easily transported.

Rodents are stow-aways, among our boxes, planes, trains, ships, and delivery trucks of all kinds. Their transfer occurs from continent to continent, from city to city, and from building to building on a 24/7/365 basis. In most cases, humans are totally unaware of all the times we are shipping rodents from one place to another.

2. Fast reproduction.

Rodents reproduce very quickly when their resources of food, water and shelter are abundant. Population biologists stress that when rodents have abundant resources from human food discards of all kinds, they reach maximum potential via the numbers of pups per litter, the numbers of litters per year, and the length of time it takes for the young rodents to reach sexual maturity. This results in logarithmic growth of local infestations.

3. Difficult to access structural infestations.

Inside buildings, rats and mice nest and maintain their young in structural spaces often difficult to access (harbourage). Structural engineers estimate that once a building is completed, humans have access to only about 50% of the finished building. The other half of the building comprises the hard-to-reach voids, nooks, crannies, and interstitial spaces, ceiling voids, etc., that because of their small body sizes, rodents can squeeze into and remain hidden unbeknownst to a building's occupants.

4. The public is hesitant to purchase a professional service that guarantees a high level of control.

According to rodent population biologists, achieving greater than 95% elimination of a rodent infestation is necessary to achieve long term (sustainable) control and prevent rodents from rebounding back to their original level prior to the control program. This rebound can occur within 6 months to one year depending on resources and various environmental factors. Nevertheless, to achieve the 95% level requires professionals *having the time (service units)* to access the hard-to-reach spaces previously mentioned. Simply stated: more service units mean higher costs to the customer.

5. The public is often unprepared, uninterested, or unwilling to be an active partner in the necessary IPM process that rodent control demands.

As every professional of PMANZ knows, achieving long term control of a customer's pests requires *partnership*. The customer must contribute their share of the work via thorough clean ups inside and out to deny rodents the daily amounts of food they need to survive and produce offspring. Too, they must be receptive towards making the necessary building repairs on doors, foundations, and roofs to prevent new rodents from re-invading.

If these essential components of IPM are not embraced, much of the money and hard work it took to get control in the first place has a high chance of being wasted. As good as we are and as dedicated as we are to the public, we can only do so much. We are not magicians.

Tips for Gaining Control

Based on the above five challenges, it is easy to see how rodents are among our most difficult to control urban pests. Nevertheless, today's pest professional must adapt, stay razor sharp current, grow, and use all the new breakthroughs of products and technology. We must also constantly strive to update our own on-the-job techniques based on the release of new science to maximize the effectiveness of our excellent tools. A great rodenticide bait, trap, or sensor cannot perform to its maximal potential in the hands of a technician who is lax excellence with inspections and assessments on the job site.

For PMANZ professionals, I present four of my own favorite tips below when I'm faced with fighting tough rodent infestations:

1. ***Conduct assessments of the rodent infestation vs. performing only basic inspections for rodent signs.***

Assessments allow you as a professional to determine five important insights to the infestation:

- a. Which side of building might be creating the greatest rodent pressure and address those areas in a priority strategy.
- b. The structural areas the rodents within a client's building are using for nesting and nursery sites. This is critically important in stemming off replacement rodents that create "call-backs" for return service. Rodents usually prefer quiet, well-protected, and non-drafty spaces to establish their nests and rear their young.
- c. Determine if the infestation is minor, moderate, or severe. Minor infestations usually

indicate the rodents tend to explore to the outer limits of their established home ranges. In severe infestations, foraging ranges tend to be on the short end of their limitations. Assessing this is important as to how close or far apart baits and traps need to be placed as well as the label application rates of baits. This one assessment is by far among the most important on-the-job determination to help achieve control quickly.

- d. Is the current infestation of rodents due to *re-invading rodents* from the outside due to mis-fitting doors or holes in foundations, walls, or roofs? Or, is the infestation due to *resident rodents* (those living and reproducing inside the building month after month, but are not being accessed because ladders and other investigative tools are not being used to access the hard-to-reach voids (e.g., ceilings, cabinet voids, equipment voids, etc.)?
- e. Good assessments clarify a list of the customer's tasks (i.e., the partnership) that may be contributing to the infestations (e.g., sanitation, clutter, building repairs). This list can be shared with the customer for their attention and participation.




2. *Install equipment based on rodent behavior, not according to arbitrary spacings simply to make the installed equipment look "organized".*

Linear lines of exterior and interior rodent equipment evenly spaced around walls is not a scientific approach for getting the most out of the excellent rodent control equipment available to us. Rather, equipment should be installed in carefully selected spots attractive that matches the principles of rodent behavior (e.g., shadowy areas, corners, areas with abundant feces, or sebum trails, etc.). For more formal discussion on this important practice for delivering precision rodent control via science vs. via yardstick measurements, refer to the two recent references listed below.

3. *There is no standard rodent, rodent population, or rodent infestation.*

If a pest control company uses the same brand and type of trap, bait, or bait station for all customers it may render the tasks of bookkeeping, storage and re-ordering easier. But doing so is an elementary mistake against performing scientific rodent control. When dealing with live animals (insects or rodents), Mother Nature never produces a "standard" prototype of either the animal itself, or of the population to which the animal belongs. Additionally, there is no standard among our cities, towns, or the buildings of such. And, finally, there is no standard regarding the behavior and habits and needs of all our clients.

Article continues after advert



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So how can a pest control company “standardize” their tools or procedures or pricing so that one size fits all rodent issues everywhere? Pricing a roof rat job should be quite different than pricing a Norway rat job even though they are both “rat jobs.”

4. Take quick advantage of new innovations with equipment, chemicals and technology.

One of the secrets of performing great rodent control and reducing annoying callbacks is to be very diversified within your professional tool kit. Over the past few years alone, new bait formulations, bait stations, traps and sensors have been developed by experts, scientists, and product specialists.

However, this short article is certainly not enough to put you on the path to excellence in keeping up to date. Always carve out time to *study* (not just browse) the industry’s trade magazines or journals (e.g., *International Pest Control*, *Pests*, *FAOPMA magazine*, *Pest Control Technology*, *Pest Management Professional*, etc.). When I study this literature, I’m always aware how easy it is to feel overwhelmed with all the new products available for us to try.

For example, let’s consider here just one development: the recent emergence of better pest monitoring and detection technology via electronic sensors and wildlife trail cameras.

Electronic Rodent Sensors

Sensor technology is, for sure, one of the most significant breakthroughs in the pest control industry(perhaps on par with our progressing from cockroach and termite sprays to baits and baiting techniques for both species). Rodent sensor technology has been developed by several different manufacturers under varying brands names and types of on-the-job assistance they offer. However, two broad categories of sensors include:

- 1) **Remote Sensors (RS)** employing Apps and Cloud technology can send alerts via WiFi or phone cellular systems to smart phones, tablets, and/or desk computers informing the pest professional via alerts of rodent activity in bait and/or traps stations or other types of devices from any account anywhere close by or many miles away. (Figure 2).

ActiveSense AIR Sensor

New remote sensors like this one and others are changing the ways rodent control will be done in residential and commercial facilities. Sensors provide us with “insight” into activity patterns of rodent infestations. This sensor fits in the palm of the hand.



Article continues after advert

2) **Equipment Activity Sensors (EAS).** These sensors perform while on the job site and do not perform any remote functions as described for the RS. They work via blue tooth on-site connecting the rodent control equipment (multiple catch traps, snap traps, bait stations) directly to the pest professional's smart phone or tablet letting them know which specific piece of installed equipment and its location has current activity/captures. This saves the labor of checking all the equipment when many components may in fact not require any servicing at all.

Trail Cameras

Everyone has become familiar with trail cams and their applications for photographing wildlife activity in their natural settings during the day or night. It is fair to say wildlife cams have changed the science of wildlife management as well updating us on the presence of what was once thought of certain species being extinct to certain regions.

Trail cams have now taken on wide scale use for rodent management in all kinds of environments and buildings from residential to commercial, from sewers to luxury office towers to missile silos. Trail cams are inexpensive, and the different models offer superb low light capabilities, direct WIFI transmissions, abundant flash card storage, and other utilities.

On-the-job pay-offs.

The value of electronic sensor and trail cam technology in both routine maintenance rodent control as well as for solving tough rodent jobs cannot be overstated.

Here, in addition to the discussion above, are additional advantages of sensors and camera technologies. The two technologies can also be used together on the same infestation to more powerful insight of serious infestations.

1. Sensors and cams document the presence or absence of rodents in a building, or a specific area within or around a building on a 24/7 basis.
2. Both sensors and cams can provide estimates on the severity of an infestation. (Is there one rodent or dozens? (valuable for formally monitoring before / after measurements of an control programs).
3. Cams can confirm the rodent species, age class, and often the sexes of the rodents present.
4. Cams can pinpoint the 'mystery spot' to where a rodent is entering or exiting a building or an area, as well as a particular area of a room/building where the rodents are nesting (see earlier discussion on the importance of this).
5. Sensors and cams can shed insight as to whether or not rodents are avoiding installed equipment and thereby eliminating the constant threat of false negatives (i.e., no trap captures or activity does not necessarily mean no rodents).
6. This technology provides insight into hard-to-reach areas (e.g., ceilings, crawl spaces, wall and floor voids, etc.), and whether or not those areas require any service attention or equipment. (Consider the time loss in servicing ceiling spaces should rodents be not using such areas in a building vs. the consequences of not servicing such areas when they are!).
7. Both technologies can identify the main highways of the current infestation inside and out, and thereby direct a pest professional to the best locations for installing equipment.

8. When employing trail cams, one of the most valuable *side benefits* are the lessons learned by reviewing cam footage. Cams have repeatedly revealed how wily and capable rodents are in climbing, running, investigating their surfaces, interacting (or not) with various objects, and other behaviors. In turn, this helps us to be better at installing our equipment in the right locations, learning which lure baits are best for a specific account (but not for others) – both of which are again tremendous time and money savers.

Summary Comment

Pest control is an evolving science. But it is also a business built upon that science. To succeed in this unique match-up of science and business, requires us as pest professionals to be diversified in our tools, perform insightful assessments, and to approach each and every rodent job as a unique, and never assume a standard template approach. As true professionals (i.e., we are being paid to keep scientifically up to date) we must remain along the cutting edge by regularly reviewing rodent control research, novel technology, and equipment innovations as it emerges.

Suggested Reading:

- Frye, M., et al. 2021a. Assessment of factors influencing visitation to rodent control devices at food distribution centers. *Journal of Stored Products Research* 93: 101838. 2021.
- Frye, M., et al. 2021b. Spaced or Placed? New science proves it's time for a shift away from an outdated equipment paradigm. *Pest Control Technology*. Vol 51:(10): 32-36.

Best Wishes to PMANZ Friends!

Bobby Corrigan, Ph.D.

Urban Rodentologist

Westchester, New York.

An advertisement for MAC Lure Lure Cinnamon Scented Lure. The image shows two white cylindrical containers of the lure, each with a red and green label. The label features the MAC logo and the text 'Lure Lure', 'LEADS RODENTS TO TRAPS', and 'CINNAMON SCENTED LURE'. The containers are placed on a wooden surface next to several cinnamon sticks and a glass of cinnamon chai. A text box on the right side of the image contains the following text: 'LURE THEM IN WITH THE IRRESISTABLE AROMA OF CINNAMON CHAI!', 'NON-FOOD BASED RODENT LURE', 'NON-TOXIC', and 'NO MPI APPROVAL REQUIRED'. At the bottom of the image, there is a red banner with the website 'www.arandee.co.nz' and the MAC logo.

LURE THEM IN WITH THE IRRESISTABLE AROMA OF CINNAMON CHAI!

- NON-FOOD BASED RODENT LURE
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MAC

The future of rodent management is now.

By Samuel Wood

By using iQ® smart rodent devices at your customer accounts, you can elevate your rodent management program by blending essential time savings with efficient data collection. The iQ product line-up, powered by Bell Sensing Technologies, includes rat and mouse sized bait stations with sensors, as well as multiple catch traps and snap traps with sensors. Customise your problem solving by using the best type of device for the job, complete with easy to use and affordable technology. Even better, there are no subscription fees or data charges. All you have to do is pair with your phone and get sensing.

iQ products help eliminate the tedious and gruelling act of checking empty traps. In a study conducted in a 56,000 sq. m. warehouse with over 200 devices, a pest control operator (PCO) was able to reduce time spent checking devices by 90 minutes in a single visit, compared to standard rodent control devices. Pest control companies who have introduced iQ technology into their rodent control programs have consistently netted time savings on trap and device checking.

Article continues over the page

THE FUTURE IS NOW



T-Rex iQ



POWERED BY
Bell
SENSING TECHNOLOGIES™

NO

- SUBSCRIPTION
- CHARGE
- DATA FEES

BUY DEVICES & GET SENSING



www.bellsensing.com



The time savings gained are then used towards surveying rodent's entry points, burrows, food sources, or sanitation issues at the account. A bait station that tells the PCO when and where rodents are travelling, with timestamps, help identify rodent behaviours, which makes this technology smart to add to a technician's toolbox.

The functionality of iQ products makes it more practical to place hard-to-reach traps at your accounts since you don't have to spend time checking the traps during every scheduled stop, which may require you getting on a ladder or crawling in tight spaces. Instead with iQ, you can conveniently monitor traps from your phone during your visit - saving time and reducing serious injury risk.

Hard-to-reach bait stations with iQ can also serve as a great resource to use to collect data year-round or pulse bait neophobic rodents.

With time-stamped data, you can analyse important trends like seasonality to help you quickly mitigate rodent escalations before they turn into rodent infestations that can damage critical infrastructure like machines, storage boxes, or electric wires.

Data insights can also help you know the preferred baits and travelling routes of your rodents putting you ahead and informed in your battle against the fleeting and endurable rodent. Since rodents can strike fast, it's important to be prepared. Rodents can spread disease, spark fires, and reproduce quickly.

Rodent management becomes more than just setting traps and checking them with iQ. It empowers pest control operators to become trusted partners and sleuthing detectives at their accounts. The future of rodent management is now. See how iQ products, powered by Bell Sensing Technologies, can elevate your rodent management program today by going to bellsensing.com or scanning the QR code.



www.bellsensing.com

Palatability is the Key to Success with Rodent Management Programs

When controlling rodents professional pest managers need to employ a range of methods.

Ensystex Regional Director Steve Broadbent has advised that “The key to securing rodent feeding on baits is to use a premium quality, high protein bait with aromatic attractants to draw the rodents to the bait. There is no benefit from using cheap baits which simply don’t have the drawing power required for effective control programs.”

Mr Broadbent explained that “Rodents have an area above the palate known as the *diasma*. This is like an air pocket that connects to the nasal passage. It is used by rodents to assess the quality of the feed before they consume it. They nibble a new food source and then pass air through the diasma and over the food. Rodents are ‘choosy’ feeders since they cannot vomit. This is why they use the diasma, they need to ensure they are eating a high-quality feed that won’t make them sick, since this could result in them choking to death.

Rodents may nibble on poor quality feeds, but they won’t invest the time to consume them and take a lethal dose, unless they are sure of the quality. This is also why Ensystex chose to develop RODENTHOR™ Soft Bait and RODENTHOR Block Bait with the active constituent brodifacoum.

Brodifacoum is one of only two SGAR actives that can be considered a true single-feed toxicant against all species of commensal rodents at all times (the other is flocoumafen). This is important as professionals need to ensure they kill rodents with as little bait as possible. The high potency of the RODENTHOR Baits also means that Ensystex can provide the products as either a 15 g Extruded Wax Block or a 15 g Soft Bait sachet, ensuring that your bait goes further and minimising risks of non-target poisoning.



**Soft Baits can still be attached to rods in locked Bait Station such as the
as the
RODENTHOR BETA Station**



INNOVATION BRINGS A NEW DIMENSION TO RODENTICIDE BAITS

WITH NEW LIPOGEL TECHNOLOGY™



Be prepared... you might find the
rats eat it while it's being applied.
« See for yourself



This is not a soft bait, our unique Lipogel technology allows us to blend the **finest food ingredients**, together with specially derived **Lurent Aromatics**, to create a gel bait which retains high qualities of **long-term stability, attraction, moisture retention** and **palatability** and doesn't set or harden.



Lurent Aromatics

Since rats in particular are driven more by scent than taste, RODENTHOR GEL contains a unique blend of distinctive aromas that Norway and roof rats find exceptionally inviting. These aromas draw the rodents to the LipoGel placements.



Moisture Retention

Rapid efficacy - Rapid baiting -
Rapid absorption for faster kill.



Stays Put!

High adhesiveness in all
weather conditions.



Easy to Use

Ready-to-use and supplied in a
300 g caulking tube.



Brodifacoum

A true single-feed active, the
most potent agent for killing
rats and mice.



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www.Ensysstex.co.nz

Because this is more than enough to kill a rat or mouse, it means that bait placement works out more economical than using other products with blocks often 20 – 25 g. So, with RODENTHOR you get many more bait placements per container. And of course, brodifacoum has always been by far the best active for mice.

The use of a Soft Bait is strongly recommended as the first choice in any rodent management program. RODENTHOR Soft Bait contains a moist pasta food base (made in Italy) with added proteins and aromatic attractants. It is the moist presentation that really performs since rodents, and especially mice, can get most of their water requirements from the bait. Soft baits are presented in a sachet like a tea bag and can still be placed on bait rods in Rodent Stations.

Our research had shown that the palates of local rats and mice are surprisingly different to their international counterparts which is why the formulations we sell here are exclusive to New Zealand and Australia.

With the international pressure that exists over the use of second-generation anti-coagulant rodenticides, professionals might also consider the use of Monitor Blocks in premises that are routinely baited to determine if rodents are present, rather than using an actual rodenticide.

In many situations rodenticide is placed, even though there are no active rodents known to be present. They are there for maintenance purposes or 'just in case'. Monitoring Blocks offer a non-toxic alternative in such situations, allowing professionals to offer a lower risk policy and better protect rodenticides for when they are really needed.

Only when you detect rodent activity do you replace the non-toxic monitors with the toxic bait.

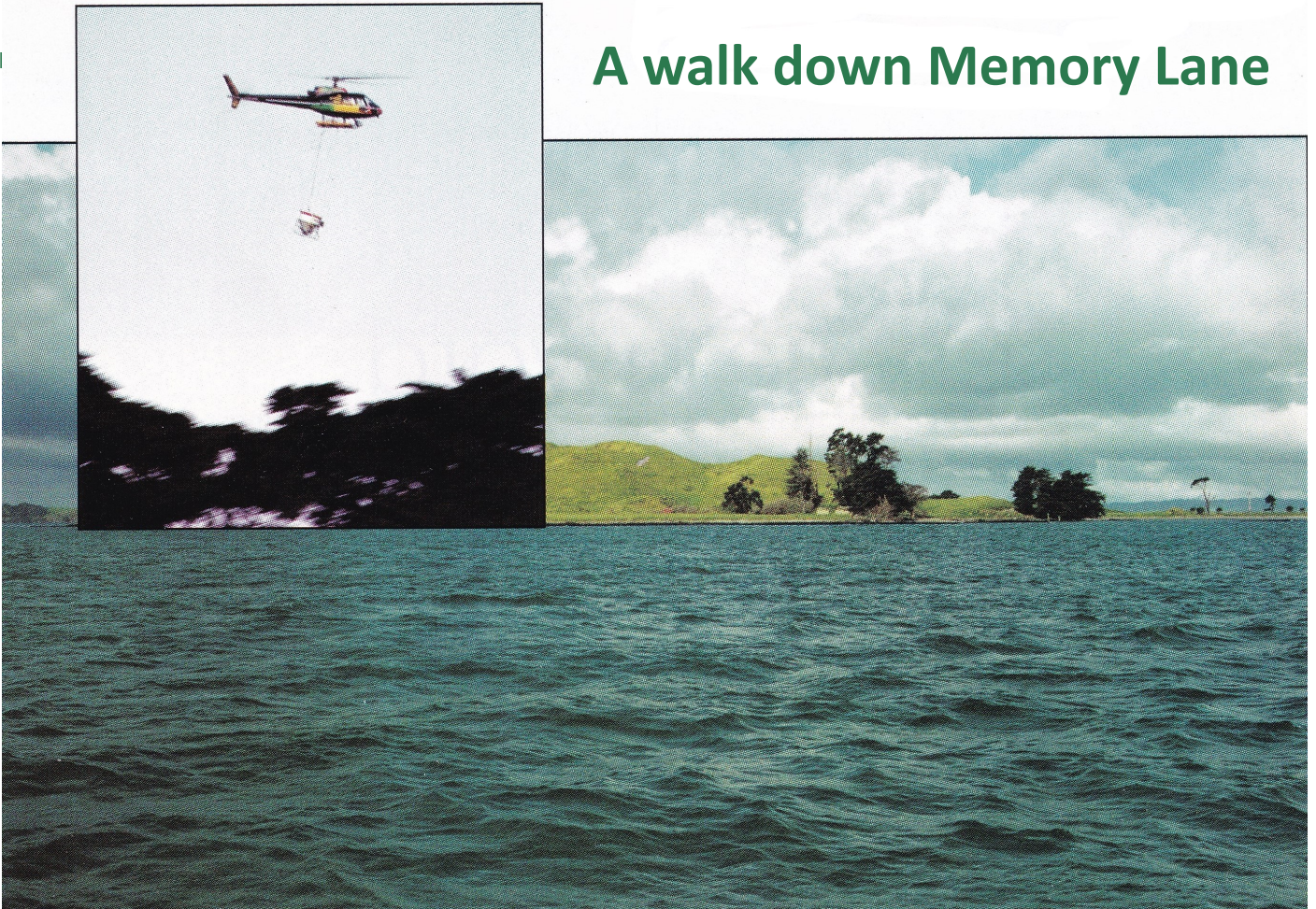


Ensysnex can also personalise your rodent Bait Stations with your company details.

Frequently Used Harborage and High-Activity Areas of the Commensal Rodents In and Around Urban Residential and Commercial Structures

HOUSE MOUSE	NORWAY RAT ¹	ROOF RAT ¹
Secluded corners	Beneath wood piles	Corner areas of attics and accessible soffits
Beneath cabinets	Near or beneath outside dog pens	False ceiling areas
Furniture voids of couches, chairs, dressers	Garage walls near heaters and stored food	Wall and floor voids in upper floors
Bases of stoves, refrigerators, dishwashers	Beneath low-lying decks	Within dead fronds of palm trees
Floor cabinet voids in kitchen and bath	Beneath low-lying and cavernous shrubbery and landscaping	Among overgrown vegetation along fence rows and utility poles / lines
Base voids in dresser bureaus	Within 100ft/30m of exterior food dumpsters and garbage cans	Beneath low-lying and cavernous shrubbery and landscaping
Wall voids near heat sources	Within abandoned alleyways near food sources	Vegetation and utility lines connected to elevated areas on building exteriors
Ceiling voids in corners and above heat sources	Beneath slab walkways near food sources	
Sill plate areas on top of basement and crawl space foundation walls	Within brick foundation wall voids near food sources	
Cluttered, neglected office drawers in desks	Any structural void areas	
Within wire chases and channels	Beneath and around slabs supporting food bins	
Beneath all types of storage shelving, especially enclosed shelves	Defunct and delapidated sewer system lines	
Within storage boxes in closets		
Within old, overlooked storage boxes in storerooms		
Within clutter of residential garages		
Within insulated walls of commercial cooler and freezer boxes	¹ Many areas utilized by any one of the commensal rodents may also be used by the other two species. The rats, however, are often denied some areas available to mice due to their larger size.	
Beneath and within bases of water heaters		

A walk down Memory Lane



In 1995 Rentokil supported Brown's Island eradication programme

Motukorea Island, more commonly known as Brown's Island in Auckland's Hauraki Gulf, was purchased for the nation in 1955. Now part of the marine reserve, it was back then overrun by Norwegian rats in addition to the mice in residence for many years. These resident rodents attack the bird life and ate the young tree shoots.

The island is home to some rare and vulnerable birds including dotterels, oyster catchers and the reef heron. In June 1995 it was reported that the Department of Conservation had no funds to undertake the urgent pest eradication programme for the island.

Hearing this, Rentokil contacted the department and offered to provide all the poison pellets required plus make a substantial donation towards the cost of application. The company also offered bait stations to be used for monitoring the kill after the initial application.

These offers were accepted, and Rentokil's Product Manager, Kevin Honeybun arranged to have the special bait block and bran pellets coated in Rentokil poison ready for application on the island. As the pellets had to be distributed evenly over the 57 hectare island, an aerial application method was chosen.

In late winter, at a time when the natural food sources on the island were low, the drop was made by helicopter. Using a motorised bucket to control the flow of pellets, the whole island was treated in one hour.

Subsequent checks revealed a remarkably even spread of pellets. Later visits during the time the island remained closed to the public, showed a significant uptake of the pellets and even the unusual sight of dead rodents on the ground. Unusual because they usually return to their burrows and die there.

Mr Dick Veitch of DOC is pleased with the results so far.

"We seem to have achieved a 100% rat kill" he says.
"The mouse population has also been radically reduced."

It is too early yet to point to complete success, but Brown's Island is well on the way to being pest free and becoming a secure environment for birds to multiply, vegetation to flourish and people to enjoy, thanks to Rentokil Environmental Services.

Source: The **New Zealand Rentokil Review 1996**

Understanding MPI Approved Maintenance Compounds (AMC's) (Non-Dairy)

By Peter Barry

Approved Maintenance Compounds (AMCs) are chemical substances that are commonly used in the food industry to clean and sanitize food processing equipment, surfaces, and utensils.

The Ministry of Primary Industries (MPI) published guidelines for the use of AMCs in August 2020, which includes regulations for the use of pesticides in food processing facilities.

Paragraph 4.5.9 of the MPI guidelines specifically addresses the use of pesticides as AMCs.

According to the MPI guidelines, all pesticides used as AMCs must be approved by the Environmental Protection Authority (EPA) in New Zealand. The EPA assesses the risks associated with the use of pesticides and determines whether they are safe for use in food processing facilities.

In addition to being approved by the EPA, pesticides used as AMCs must also be used in accordance with their label instructions.

The label instructions provide information on how to safely handle, store, and use the pesticide, as well as the appropriate personal protective equipment (PPE) to wear during use.

When using pesticides as AMCs, it is important to follow proper application procedures. This includes diluting the pesticide to the appropriate concentration, applying it

only to the areas where it is needed, and allowing sufficient contact time for the pesticide to be effective.

After application, any remaining pesticide should be rinsed away thoroughly to avoid contamination of food products.

It is also important to maintain proper records of pesticide use. This includes keeping track of the type of pesticide used, the date of application, the amount used, and any adverse reactions or incidents that occur during or after use.

By following the guidelines outlined in paragraph 4.5.9 of the MPI guidelines, food processing facilities can ensure that pesticides used as AMCs are used safely and effectively to prevent contamination of food products.

The guidelines specify different **types** of pesticides that are approved for use as AMCs, as well as the conditions for their use.

Rodent baits are designed to control rodent populations and can be used in bait stations or placed in areas where rodents are likely to be present. ***They should not be used in areas where food is directly handled, prepared, or stored.***

Pesticides should also be stored and labelled properly, and their use should be recorded to ensure proper monitoring and traceability.

Article continues over page

The MPI guidelines divide pesticides into three categories: general, sanitizing, and rodent baits.

General pesticides are used to control a variety of pests, including insects, spiders, and other crawling or flying pests, and can be used in a range of areas in food processing facilities, including walls, floors, and ceilings. They can also be used in areas where food is not directly handled, such as trash areas and loading docks. However, they should not be used on food contact surfaces or on equipment that is used in direct contact with food.

Sanitizing pesticides are used to control bacterial, viral, and fungal growth on surfaces, and can be used on food contact surfaces, as well as non-food contact surfaces in food processing facilities. They are effective against a wide range of microorganisms, including bacteria, viruses, and fungi. However, they should be used in accordance with label instructions and allowed to dry completely before food contact surfaces are used.

Rodent baits are used to control rodent populations.

MPI guidelines categorise pesticides into four different types based on their chemical composition and intended use:

Type A, B ,C and D and each have conditions and requirement for use.

Type A:

These are insecticides that are based on synthetic pyrethroids or other synthetic insecticides. They are designed to control crawling and flying insects, such as ants, flies, and mosquitoes. They can be used in a variety of areas in food processing facilities, including walls, floors, and ceilings, but they should not be used on food contact surfaces or equipment that comes into direct contact with food. For a list of Type A approved insecticides click [HERE](#)

More specifically:

1. This insecticide may only be used in edible areas as a space spray provided that, before use, all edible products and packaging materials, except canned products, are removed from the room.
2. After using this insecticide the room must be adequately ventilated, and all food contact surfaces thoroughly

Requirements:

- This approval is limited to insecticides in the form of contact sprays, space sprays and aerosols;
- The compound must not have any residual killing activity;
- The directions for use must very clearly comply with the conditions of Type A approval;

Click [HERE](#) to see all requirements of non-residual insecticides Type A

Type B:

(1) This insecticide is **not permitted in any edible product area** or any area where edible product or packaging material is stored.

(2) It must be used in a manner that prevents the entry of the insecticide into edible product areas or stores containing packaging material. For a list of Type B approved insecticides click [HERE](#)

Requirements:

- This approval is limited to insecticides;
- Granular or powdered insecticides, except those marketed exclusively in labelled dispenser containers, must be coloured a definite blue or green to distinguish them from food. Any dye or pigment which imparts a definite blue or green colour to the mixture may be used;
- It is acceptable for the compound to have residual activity, i.e. kill insects over an extended period of time; and
- The directions for use must not give any indication that use in edible areas is acceptable.

Type C:

(1) This pesticide may only be used in premises according to the requirements of a pest control programme which has been documented to relevant MPI legislation.

(2) It **may be used in food areas** provided there is no exposed product or food ingredient present in the room.

(3) It must be removed from edible areas before processing operations commence.

For a list of Type C approved rodenticides and insecticides click [HERE](#)

Requirements:

- This approval is limited to the pesticides, including rodenticides and dry baits containing, dry inert materials such as grains, meals, or flours; and must be coloured a definite blue or green.

Type D:

(1) This pesticide must be used strictly in accordance with the special conditions contained in the approval letter.

(2) The operator must have access to a copy of this letter of the product's individual approval criteria.

For a list of Type D approved insecticides click [HERE](#)

Type D – Note: Type D products are individually approved. These approval criteria are available on the MPI website at [Approved Maintenance Compound \(Non-Dairy\) - approval codes](#).

Requirements

- This approval is limited to the miscellaneous pesticides / pest control products, e.g. crack and crevice treatments;
- Where the compound contains a pesticide, the directions for use must not give any indication that use in edible areas when exposed product or food ingredients are present is acceptable;

- Where the compound does not contain a pesticide the directions for use may apply in edible areas provided that their use does not create a nuisance;
- Insecticides may be used for a single crack and crevice treatment in edible areas including product processing areas, warehouse areas where edible product, ingredients, and packaging material are stored in sealed containers; and non-processing areas provided that the following conditions are specified in the directions for use:
 - all exposed edible product and packaging material is removed, covered, or stored in closed containers;
 - do not indicate surface treatment such as at floor-wall junctions in rooms where use is restricted to crack and crevice treatment;
 - when used in non-processing offices, welfare areas, etc., insecticides must be used so that they will not be transferred to employees' clothing or other materials that may contact product;
 - after treatment, the areas must be adequately ventilated, and all food surfaces thoroughly washed with potable water before edible products and packaging material are returned to the room (to remove all traces of contamination);
 - treated cracks and crevices must be sealed with appropriate material within a reasonable period of time after treatment; and
 - advise verifier of use of compound.

Conclusion

This is quite a daunting list of use-conditions for us as 'pesties' to understand and digest, but fortunately, its not up to us to decide what AMC Type a particular pesticide is.

It is **on the label of all insecticides and rodenticides**. All you need to do is **follow the correct conditions-of-use**.

This is the most important part, as some pest managers have encountered problems with the use of Type A insecticides, particularly when fogging and or spraying in food production and storage areas.

Reason being, they either are not following the conditions of use, or in one specific instance their client and MPI verifier misinterpreted or 'turned a "blind eye" of the conditions-of-use in their food production and storage areas. This has affected the 'pesties' business financially, as MPI stopped their fogging practice.

Familiarise yourself fully with the conditions of each Type and use-conditions of your insecticide, to make sure you don't fall foul of a verifier's audit when next they visit one of your clients.

If you have any questions, please email me with your mobile contact number to peter@pmanz.nz and I will phone you.

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News Worth Sharing

Rodent traps can be effective at controlling house mice infestations

The [European Chemical Agency \(ECHA's\)](#) Biocidal Products Committee (BPC) considers that mechanical traps are suitable alternatives to anticoagulants for controlling indoor mice infestations. However, their effectiveness is uncertain for other uses and target animals like rats. The committee also considered chemical alternatives in its opinion on the comparative assessment of anticoagulant rodenticides.

In its November meeting, the BPC adopted its opinion on the comparative assessment for the second renewal of all anticoagulant or anti-vitamin K (AVK) rodenticides in the EU. This assessment, which looked at chemical and non-chemical alternatives to anticoagulants, was done by ECHA at the request of the European Commission.

For more details on the opinion click [HERE](#)

And read what the British Pest Control Association had to say about this - click [HERE](#)



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News Worth Sharing

Hybrid resistance: anticoagulant resistance in rats and mice



Campaign for Responsible Rodenticide Use (CRRU) UK has published a new summary of anticoagulant resistance data for rats and mice in the UK, including 2021 and 2022 data.

The report includes details on hybrid resistance (when a rat or mouse has developed two mutations). This summary is taken from the CRRU report VPU/22/002. It is available to read in full at thinkwildlife.org/downloads

During the period 2009 and 2022, in which these DNA resistance surveys have been conducted (first at the University of Reading and now at the Animal and Plant Health Agency) a total of 489 Norway rat and 129 house mouse tissue samples have been examined, with DNA extracted from them and sequenced.

Among these samples, it was found that 77.9% of rats and 94.6% of mice carried one or more single nucleotide polymorphisms (SNPs), which are known significantly to affect the efficacy of anticoagulant rodenticides.

These results may not reflect the true frequency of resistance in the two species, however, because samples are generally sent by those experiencing difficulties in obtaining control of rodent infestations with anticoagulants.

Read the full BPCA report [HERE](#)



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Early-bird registration ends September 6.

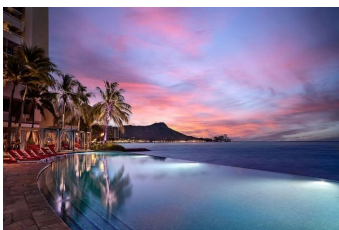
Register by this date to take advantage of the lowest pricing available.

NOTE: Let David Warrick know if you are interested in attending as PMANZ will do a international member multiple registration for PMANZ members for US \$435

Hotel Information

This year, NPMA has three hotels to choose from to enjoy your stay in Honolulu. Each of the hotels are one mile from the Hawaii Convention Center, and NPMA will provide a shuttle service during peak times from the Sheraton.

Book your hotel stay in one of the three hotels below by September 20 to lock in the per night room rate. After this date, rooms are subject to availability.



**Hawaii Convention Centre
Auditorium**

Click [HERE](#) for full hotel details



NEW ZEALAND NEWS



Leptospirosis cases have more than quadrupled in Hawke's Bay



Mud and silt in Esk Valley after Cyclone Gabrielle. Muddy or silty water can spread leptospirosis. Photo / Paul Taylor

Leptospirosis has spiked in Hawke's Bay "Leptospirosis can live in host animals such as rats. Rats will shed large amounts of this infectious bacteria in their urine into our environment such as damp soil or silt and stagnant flood waters."

Te Whatu Ora Public Health Hawke's Bay says there have been 15 leptospirosis cases in the year to March 8.

In previous years, there were zero to three cases for the same period.

The Pest Management Association of New Zealand (PMANZ) had earlier reported the cases.

"Over the last three weeks there have been many people involved in the clean-up of silt, moving around standing water, completely unaware of the risk of leptospirosis," a PMANZ statement read.

The PMANZ statement said the bacteria can spread through contact with your mouth and nose, as well as into cuts and abrasions.

Dr Simon Baker, medical officer of health, said Hawke's Bay summers were usually very dry. However, as leptospirosis bacteria survives longer in wet soil, wider leptospirosis outbreaks tend to be more common after heavy rain and flooding.

Source Hawkes Bay Today and PMANZ

For full story click [HERE](#) and see over pages for PMANZ Press Release by Gerwyn Jones

What is Leptospirosis

Gerwyn Jones

- Is a Council member of the Pest Management Association of New Zealand (PMANZ)
- Has carried out training on Leptospirosis for local authorities within New Zealand.
- Is a published author in the UK on zoonotic diseases and on pest and disease activity following major disaster events.
- Is a Hawke's Bay resident.

Several cases of Leptospirosis (Weils Disease) have been confirmed in Hawke's Bay Region. Leptospirosis is an infectious disease transmitted from animals to humans by infected urine.

We (the Pest Management Association of New Zealand) have been advised that several cases of Leptospirosis (Weils Disease) have been confirmed in Hawke's Bay Region during late February and wish to support the local community by the provision of information to help prevent infection.

Over the last three weeks there have been many people involved in the clean-up of silt, moving around standing water, completely unaware of the risk of Leptospirosis.

It is extremely important to ensure when carrying out work that people are safe and aware of leptospirosis and what to do in the event of the exposure to this bacteria.

Previous flooding disasters such as Queensland in March 2022 have taught us that once the clean-up begins we will start to see an increase in pest activity especially with rodents and flying insects (mosquitoes & flies).

Leptospirosis can live in host animals such as rats. Rats will shed large amounts of this infectious bacteria in their urine into our environment such as damp soil/silt and stagnant flood waters.

This dangerous bacteria can get into our bodies through contact with our mouth and nose, along with cuts and abrasions. Leptospirosis can cause minor flu-like sickness which many will just brush off and think it is either COVID or a bad cold.

The most common symptoms of leptospirosis include:-

- Fever and chills
- Headaches and lethargy
- Aching muscles
- Red eyes
- Nausea and vomiting.

The severe form of leptospirosis (Weil's disease) affects the kidney and liver (causing jaundice) and may cause bleeding. Meningitis can also occur and occasionally the disease is fatal. Symptoms can appear between one to four weeks after a person is infected and last for a few days to three weeks or longer. Some people may take months to recover.



Article continues on next page

How is it diagnosed and treated?

The disease can be difficult to diagnose. Blood tests are carried out for antibody levels and cultured for the organism from blood or urine may be attempted. It is important to be aware of the symptoms associated with leptospirosis and to advise doctors that you have been working in areas that may have exposed you to leptospirosis so that they can recommend the best course of treatment for you. Leptospirosis can be treated with antibiotics.

If you think you have been exposed what to do.

- Wash the area well and then dry.
- Wash out fresh or old cuts and grazes with water and disinfectant and dry well.
- Flush out your mouth, eyes, and any exposed skin with running water.
- Wash your hands and face well then dry thoroughly and then use a sanitizer.
- See a doctor within 24 hours if symptoms develop. Record the incident.

Prevention Strategies

- Be cautious around silt and stagnant water.
- Wear a mask.
- Cover open cuts and scratches with waterproof dressings.
- Wash hands frequently.
- Use PPE (gloves).
- Wear waterproof boots.
- Avoid working in high-risk areas if you have open wounds or eczema.
- Carry hand sanitizer.

Many areas of Hawke's Bay are currently still underwater due to the recent weather conditions making it difficult for water to drain away. It is more important now than ever to advise whanau to stay away from the standing water. It may look fun to play in but it could contain diseases that can make people seriously ill.

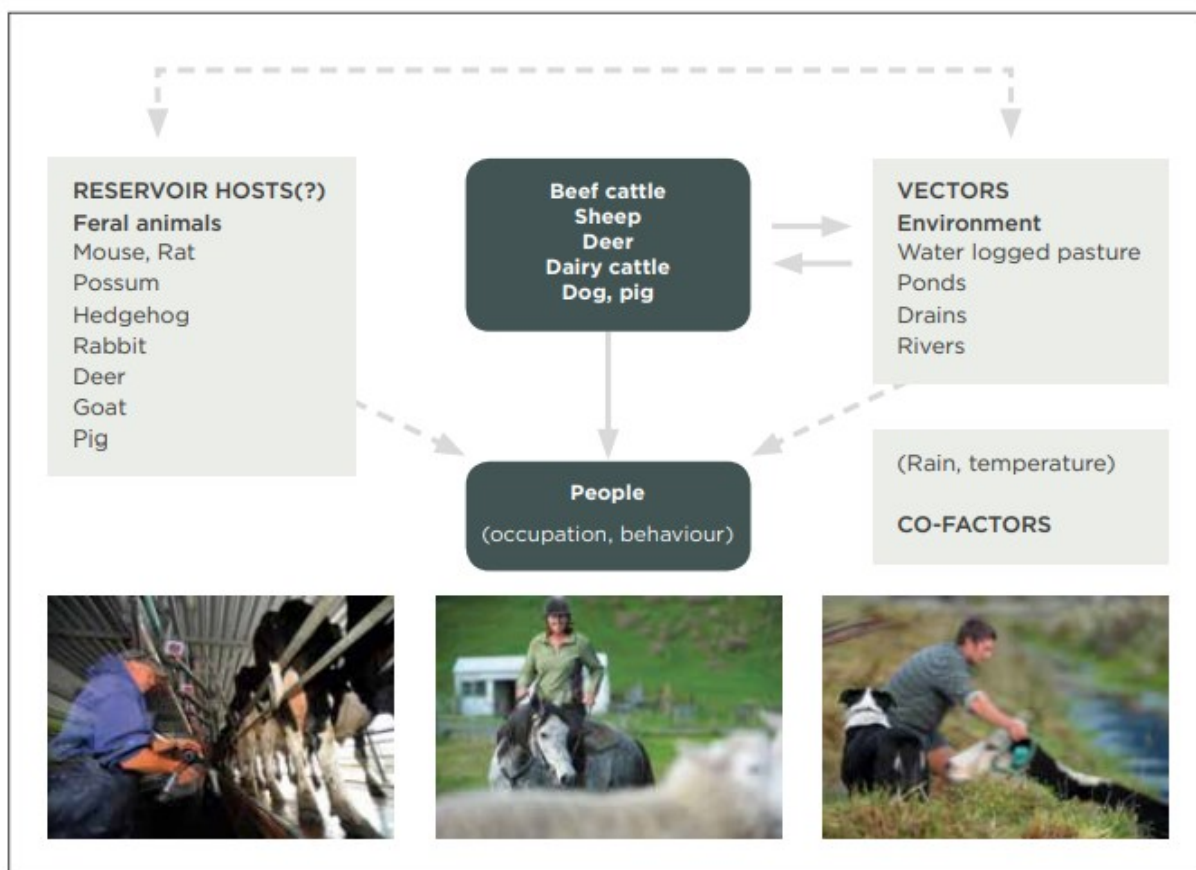


Figure 1: Ecological model of leptospirosis in New Zealand¹

Source: WorkSafe New Zealand - [Prevention and Control of Leptospirosis](#)

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The Angus Inn, 5 Cornwall Street, Hutt Central, Lower Hutt 5040

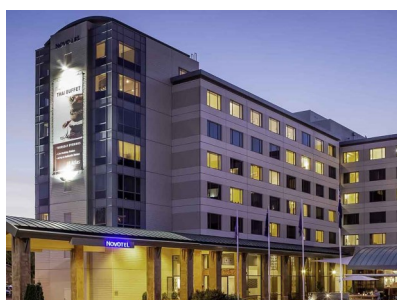
Rotorua, Monday 12th June, 2023

Novotel Rotorua Lakeside, Lake End, Tutaneikai Street, Rotorua 3010



Auckland, Wednesday 14th June, 2023

Sudima Auckland Airport, 18 Airpark Drive, Māngere, Auckland 2022



Mosquitoes also on the rise in Hawkes Bay

By Gerwyn Jones



Culex pervigilans is the most common domestic mosquito

Over the last couple of weeks, you may have noticed an increase in mosquito activity around your homes, this is because mosquitoes breed in standing or still water which Hawke's Bay Region has plenty of after cyclone Gabrielle.

After the recent floods in New South Wales, Australia, they experienced the highest mosquito numbers ever recorded in the history of the New South Wales Arbovirus Surveillance Program.

Flooding can lead to massive mosquito numbers. Simply put, with more water, you get

more mosquitoes, as the water provides habitat for the larval stage.

The floodwaters can be very productive for Culex species such as *Culex pervigilans*, the widespread and aggressive biting mosquito in New Zealand.

This species of mosquito will breed in troughs, vases, tanks, cisterns, gutters, jars, tins, bottles, tyres, buckets and many other vessels left lying around. Their ability to utilise a wide variety of breeding habitats means they can thrive in both rural and urban environments.

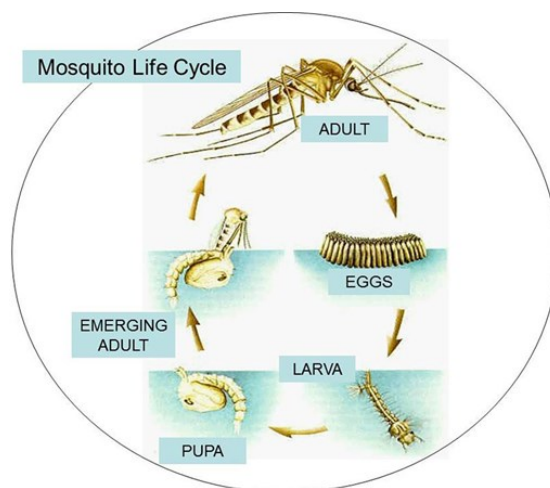
Article continues on next page



Culex quinquefasciatus is also present in the area which can be extremely annoying as it flies into homes and buzzes you while you are sleeping. The typical mosquito whine you hear at night is mostly likely due to this species. It is only the female mosquito that bites as they must consume a blood meal before laying the first batch of eggs.

The eggs of this species are laid as rafts on top of the water surface and when they hatch the larvae are able to survive in the cooler months. The adults do not usually disperse greater than one kilometre from their hatching point.

This mosquito usually breeds in organically rich and polluted surface waters including drains and septic tanks and will happily bite other mammals such as dogs, horses, cattle, pigs and birds.



Article Continues on next page



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Aedes antipodeus, *Coquillettidia iracunda*, *tenuipalpis*, *Culiseta tonnoiri*, are also in the Region and occasionally bites humans.

Biting can cause irritation and lead to secondary infections from the scratching, but this is rare in otherwise healthy individuals. Fortunately, New Zealand has very few local mosquito-borne diseases. Whataroa virus is transmitted by bird biting mosquitoes, although it is rare for birds to show any illness.

Large water bodies may need to be treated by aerial application of insecticides, via fixed wing aircraft or helicopter. Small bodies can be treated with two main insecticides.

One is derived from bacteria that specifically kill mosquitoes, *Bacillus thuringiensis israelensis*, or the second option is a chemical called Methoprene, which is an insect growth regulator that prevents the larvae turning in to adults.

Both products are very safe to humans and our pests, having extremely low mammalian toxicity.

The larvae in standing water can be killed by a product called **Aquatain**. This is a silicone based liquid that only needs a few drops per square meter to make the surface of the water unsuitable for the mosquito larvae to breath and they die of suffocation. Mosquito larvae feed with a 'siphon' which pierces the surface of the water, the Aquatain affects the surface tension of the water and the larvae siphon can't pierce the surface to reach air.

Aquatain stays across the surface of water so even when the water surface is affected by wind Aquatain doesn't shift with the wind like some other liquid control products. It also has a great residual providing control for up to one month. After a month it tends to be broken down by UV action of the sun.

These products are available from our New Zealand suppliers Key Industries, Garrards and Southern Monitoring Services.

If you can eliminate the mosquitoes habitat you'll stop them from breeding. There are simple things to do in your backyard to get rid of mosquito habitat:

- Checks gutters and drains are clear of leaves and other debris regularly - this stops water from pooling.
- Make sure rain water collecting tanks are covered and sealed.
- Keep swimming pools well chlorinated and free of dead leaves.
- Empty and clean pot plant drip trays and fill with sand (sand stores the water for the plants but it's not suitable for the mosquito).
- Overturn any outdoor item that can't be removed so that water doesn't sit inside it – for example; boats, dinghy's, drums, unused sand-pits and paddling pools.
- Cover venting pipes or small gaps on septic tanks.
- Fill or drain holes in the ground that store water.
- Empty and clean pet drinking water vessels regularly.
- Fish ponds - try to find fish species that love mosquito larvae.
- Old tyres - mosquitoes love tyres! make sure they have a drain hole in them or get rid of them completely.
- Make sure you remove any rubbish such as old cans, tins, jars, bottles or any other items including plastic that can hold water.
- Under the trees - try to provide a heavy mulch to prevent water from pooling, weed mat compresses the soil and often results in pooling under the weed mat that those clever mosquitoes can still get at.

The Ministry of Health issued a great 2 page leaflet a few years ago, that details these backyard clean-up areas and how to get rid of mosquitoes. And how to avoid getting bitten. Great for around the home and school.



It can be found by clicking [HERE](#) to view and download the colourful illustrations.

Most mosquitoes tend to be active at dawn and dusk, thus avoid times outdoors when they are most active. To avoid mosquito bites, it is best to wear loose fitting clothes with long sleeves and trousers, and to cover all exposed areas of the skin with repellent.

Those containing DEET, Picaridin, or Oil of Eucalyptus are the most effective. You can also treat your clothes with a permethrin wash, these are available from outdoor stores, and are highly effective at reducing mosquito bites. If you have been bitten you can take oral antihistamines or apply various creams that are available from a chemist.

It is best to consult your local pharmacist for availability of products. If you do feel unwell, or have a severe allergic reaction, then seek medical assistance.

Plus don't forget about your pets and livestock, talk to your vet to see what they can recommend.

We have had a couple of cooler mornings in the Bay and hopefully once the colder weather sets in we will see less mosquito activity, but as historical trends have shown us that when the temperature drops we will no doubt see the rise of rats and mice seeking shelter indoors and within people's roofs.

Sources:

Dr Stephen Doggett
Manager & Senior Hospital Scientist
Department of Medical Entomology
Westmead Hospital. NSW.

Southern Monitoring Services Ltd
New Zealand BioSecure Entomology Laboratory



Rain on mosquitoes' parade

Aqua K-Othrine is an internationally proven and recognised adulticide space-spray featuring the unique anti-evaporant system called FFAST.



Aqua K-Othrine is designed for dilution with water and can be applied through thermal fogging, ULV or misting equipment.

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Wasp baiting brings back the sound of birdsong in Nelson Lakes



A wasp devouring bait. Wasps “go crazy” for the stuff, Department of Conservation Nelson Lakes District senior ranger Melissa Griffin says.

Eight days of wasp baiting in the Nelson Lakes have brought the sounds of birdsong back to forefront in the forest, says a Department of Conservation senior ranger.

About 40 people filled more than 2000 bait stations in the Nelson Lakes National Park, St Arnaud village and campground and short walk areas at the beginning of the month, with the bait being retrieved on February 16 and 17.

The baiting was done by DOC staff, Friends of Rotoiti, and Mountainbike Trails Trust volunteers.

Wasp control began in the mid-1990s at the Nelson Lakes, though the techniques have evolved and changed since then and the area treated had grown.

Department of Conservation Nelson Lakes

District senior ranger Melissa Griffin said in the period before the bait laying the forest “just starts humming with wasps”.

“After the baiting happens, that’s gone, and you can hear the birds again, you can hear the cicadas,” she said.

“It’s really noticeable, and really satisfying.”

In 2016 Stuff joined forces with DOC and the Tasman Environmental Trust to target *Vespula* wasps, one of New Zealand's most destructive pests wreaking havoc in the top of the South's three national parks.

There was a very specific phase in the wasps’ lifecycle when they could be targeted, Griffin said, and that was when they started eating protein in mid-to-late summer.

Advice continues over the page

Griffin said the common misconception about the campaign was they were trying to eradicate wasps – but the idea was to control the wasps so the native fauna had a chance to flourish.

When the wasp population got really high, they “stripped out” the honeydew from the forest, Griffin explained.

Following the baiting, both wasp nests and honeydew were monitored.

You could see the effects quickly, with the food source for bellbirds, tūī, kākā, invertebrates, geckos and skinks quickly returning to the trees just a week after the operation, she said.

When it comes to wiping out wasps, timing is everything.

“The baits that we use have a toxin added to a protein bait, and that’s so other insects like honeybees are not attracted to it. It’s very attractive to wasps when they’re in their protein-feeding phase.

“So we put it out, they go crazy for it, and they take it back to the nest and they kill their whole nest. It works very efficiently.”

* Donations can be made to the project at givealittle.co.nz/cause/wasp-wipeout-summer-20222023

Source: Catherine Hubbard

STUFF Environment Read original [HERE](#)

NOTE from Editor

German wasps (*Vespula germanica*) and common wasps (*Vespula vulgaris*) are both introduced species to New Zealand, and they do not have any natural predators in the country. This means that their populations can quickly grow to very high levels, which can result in significant social and economic impacts.

Large populations of wasps can cause damage to fruit crops, honey production, and outdoor recreation areas. They can also pose a threat to human health, as they are known to sting people who come into contact with their nests or who inadvertently disturb them.

Control measures for German and common wasps typically involve the use of insecticides or baiting techniques.

Baiting is a preferred method of control as it is less harmful to non-target species and more effective at eliminating the entire colony, including the queen. Insecticides can be used, but they should be applied carefully and according to label instructions to minimize harm to non-target species.

It is important to note that other species of wasps, such as **native paper wasps (*Polistes humilis*)**, do not generally require control as they are not considered pests and do not pose a significant risk to human health or the environment, unless there is a danger of being imminently stung.

more than a membership
IT'S A PARTNERSHIP



Whether new or returning to the Garrards Roadshows there is always something to learn or see for everyone. We would be delighted if you could join the Garrards team in bringing you face-to-face with some of the best manufacturers world-wide. You have the opportunity to listen, view and handle the latest technology and techniques in Pest Control. From rodent sensing technology to the latest chemical break throughs, there is something new for everyone.

TECHNOLOGY – Rodent control revolution: using sensing technologies.

BUSINESS - Creating the maximum value from every job

LICENCING - What's new in licensing and Government Regulations.

And much much more !

There will be giveaways, prizes, charity donations, and plenty of promotions on the day with a showbag for each attendee and much more!

Check the website for further details!

Date Keepers:

Queenstown: Monday 1st May 2023 (12:30pm Start)

Christchurch: Tuesday 2nd May 2023 (12:30pm Start)

Wellington: Wednesday 3rd May 2023 (12:30pm Start)

Rotorua: Thursday 4th May 2023 (12:30pm Start)

Auckland: Friday 5th May 2023 (12:30pm Start)

*Please remember to bring your QR code (phone or paper) to assist with quick entry.

Our RSVP system is online and ready to accept registrations! Simply click/follow the links below and fill in your details to secure your spot at the Garrards' 2023 Roadshows.

Please RSVP for catering purposes, you will receive an attendance certificate and entered into prize draws on the day. The cost of the event is free.

Register Now by clicking [HERE](#)

Predator Free Dunedin—City Sanctuary team back for 2023!



City Sanctuary team back for 2023

The City Sanctuary team is excited for the year ahead and plan to have a strong focus on defending the boundaries of other projects, namely the Halo Project and Otago Peninsula Biodiversity Group from possum re-invasion.

To do this, the team will be working with hundreds of Dunedin residents to;

- Expand predator control to new suburbs and reserves
- Increase backyard trapping participation
- Bring the community on board to manage trap lines across reserve lands.

One of the interesting aspects of an urban project is the diversity of properties the team works across. For example, they have recently partnered with the St Clair Golf Club to control possums, rats and stoats across the course as part of their habitat restoration work.

Balmacewen Golf Club will also soon be teeing off their pest control efforts. Both of these golf clubs border important habitat for native birds so it's fantastic to be helping protect the wildlife that use and move through the greens.

Article continues on next page



St Clair Golf Club with one of their new traps from City Sanctuary

Meanwhile at Palmers Quarry near Ravensbourne, the team has been trialing AT220 self-resetting traps to target possums. The bush on the land is dense and the terrain rough so it's a good location to trial these traps that don't need to be checked as often as a manual trap. Impressed with the team's predator control efforts on their property and surrounding reserves, Palmers Quarry gifted a generous donation toward trapping hardware.

City Sanctuary has also been hard at work extending their monitoring network. This will help them to measure the impact of predator control and identify where trapping efforts need to be focused. Monitoring is particularly important in boundary areas where the team must detect zero possums in the future to ensure there is no invasion into the other project areas.

One of the new monitoring tools the team has been trialing is the 'hair seeker' device which detects fur from passing animals.

In coming months, the City Sanctuary team will be finalizing possum trap networks in coastal suburbs and beginning operations in the western suburbs.

To find out more about the operating areas, click on the highlighted regions of the map below.



'Hair seeker' devices which detect fur from passing animals, installed as an additional monitoring tool by City Sanctuary

In areas that already have good possum trap densities, the focus is on maintaining engagement from backyard trappers and frequently reviewing trap lines to ensure they are laser-focused on targeting remaining predator stragglers. As part of this, the team will be increasing volunteer participation on trap lines around the city and they'll need your help!

[Sign up to volunteer here](#) and join the amazing crew of dedicated trappers or [host a trap](#) in your backyard!

City Sanctuary are also continuing to support other local community trapping groups such as the [Brighton Trapping project](#), the [Chain Hills Restoration Project](#) and [Aroha Kaikorai Valley](#).

Keep an eye out for the public events City Sanctuary will be holding this year including a trapping upskill event, a trap building workshop and a bird identification course!

Discover more from [Predator Free Dunedin](#)





Dear WIPM Members,

The WIPM Committee has been busy organising workshops for Thursday 6th July, featuring speakers from the pest management industry who will provide invaluable presentations on leadership and wellbeing.

The aim of the workshops is to inspire attendees to find new, innovative ways of developing and managing people and to improve mental resilience, as well as looking after the mental wellbeing of employees.

Kindly sponsored by [Sherwood Chemicals](#) and [Rapid Solutions](#), the WIPM Committee has been able to pull together an impressive line-up of speakers.

Click [Here](#) to view the WIPM workshop Agenda.

Tickets now on sale!

Click on this [LINK](#)

Morning tea, lunch and afternoon tea included.

Aside from the workshops, we will also be hosting a number of events at the Termite Professional Conference.

Big Breakfast hosted by [Women In Pest Management](#) on Friday the 7th of July. Free to all men and women delegates.

Register [HERE](#)



And, Coast to **Hinterland High Tea Event** on Friday the 7th July.

For more details click [HERE](#)



More information about the Termite Professional Conference can be found [Here](#).

Introducing the NZ committee.

Aimee McBean

Bugs Gone Pest Control



Mum of three and wife to Craig. I run our small pest management business in Cambridge, New Zealand. I am a Master registered technician for the Pest Management Association of NZ and hold the NZ Cert in Pest Operations (Urban Pest Control). Passionate about all things pest control, protecting our native plants and wildlife. Love spending time with whānau, friends and getting rid of possums!

Why do you support WIPM? Why did you decide to take on this role.*

Supporting women in a male-dominated role is important for any industry if we want diversity. If I can support someone new to the industry with information or advice which might help them going forward, then that's a win for everyone. I also want to make more connections within the NZ Pest Management family for my own benefit.



Nikki De Renzy

Economic Pest Control Limited



I am a Zimbabwean who emigrated to Australia and ended up in New Zealand - so pretty much a Southern Hemispherian! I thought I had cleverly arranged early retirement from my very busy role in a large law firm, but my partner Mike needed help mid-2020 to run his urban pest management business. I knew how to manage and organise things but knew surprisingly little about pests. So, while getting the business on track with administration, I also went out in the field and took on formal training - qualifying last year. The business grew hugely from 2020 to date and we took on a technician for field work giving Mike more opportunity to expand the business even more. I run the Administration, the Scheduling and Reporting, the Accounting, and the Health & Safety. I enjoy having a good relationship and communication with our clients and helping solve issues quickly. I also love going out with Mike and investigating complicated issues - especially ants, clever little things! Never did I realise pests were so interesting.

Why do you support WIPM? Why did you decide to take on this role.*

Historically Pest Management has been a very male dominated career. However, more and more women are making it their career choice. WIPM is a much needed support group, a safe place to ask questions, share work moments and learn. The energy of the team is infectious (in the best way) and the recognition and support is so encouraging to all.

2023



WIPM 2023 New Zealand Excellence Award.

Nominations are now open for the Inaugural WIPM 2023 New Zealand Excellence Award.

This Award is open to women across the pest management industry - pest management professionals, pest technicians, manufacturers, research organisations, etc....

The 2023 New Zealand Excellence Award will honour the accomplishment of a woman who has achieved success in their own career and demonstrated commitment to the success of others in the pest management industry. The winner will be selected because of their vision, courage, and leadership in advancing others in New Zealand and will be awarded to someone who can demonstrate the essential role women play in making our industry a better place to work. This award was created for a woman that is not only a high achiever, but a role model for anyone interested in a career path in pest management. Nominees may be nominated by more than one person and can be nominated by anyone which includes a family member, a work colleague, or even a customer. Nominees must reside and/or work in New Zealand.

Nominations will close at 5pm on the 2nd May 2023. You may nominate more than one person, but you must submit a separate nomination form for each. Contact info@wipm.au with any questions.

Please click [here](#) to nominate.....

The winner will receive:

- A plaque
- Recognition in industry magazines, newsletters, and social media platforms
- Winner's framed certificate
- Winner graphics for their own promotion
- Invited to be a guest on Pestie Profiles Podcast

The WIPM 2023 New Zealand Excellence Award will be presented at the Termite Professional Conference Gala Dinner in Australia, on the Sunshine Coast at the Maroochy RSL Event Centre on Friday 7th July 2023.

Please note that you do not have to attend this dinner to be nominated. A NZ representative can collect your award on the night if you win and are unable to attend.

Judging Process

To ensure professionalism and transparency, a judging panel made up of respected industry professionals with no conflicts of interest are chosen to examine the submitted nominations. The criteria of these nominations request all nominators to complete a detailed document which includes supporting testimonials. The judges may request an interview with the nominee and additional documentation to support the submission. Each judge will score each submission based on the testimonials and documentation provided by the award nominators. The aggregate highest score will determine the winner of the award.

The winner will be notified in the second week of May to allow them the opportunity to attend the Termite Professional Conference Gala Dinner and accept their award.

Just a reminder there is no cost to become a member of Women In Pest Management. To join all you need to do is jump onto the WIPM Closed Facebook Page. To join please click here. <https://www.facebook.com/groups/nzwipm>

WIPM Team

Find resources and tips for small business owners to help you look after yourself and your team.

If you're suffering financial-related stress and anxiety, talk to your GP. They'll be able to assess where you're at and refer you to a specialist if necessary.

You can also access trained counsellors for free by texting or **calling 1737**. Find out more at 1737.org.nz:

1737.org.nz(external link)

Other mental health and wellbeing support can be found at Depression.org.nz:

Depression.org.nz(external link)

Sorted has free finance tools, guides and resources on its website:

Sorted.org.nz(external link)

If you want to talk to someone for support around debt or personal budget issues, you can ring the free

Money Talks helpline on 0800 345 123:

[Money Talks](https://MoneyTalks.org.nz)

Call or text for free support

If you have questions about government financial support or business help, call the COVID-19 Business Helpline:

North Island 0800 500 362 or

South Island 0800 505 096.

If you feel a bit overwhelmed, anxious or just

want to talk, free services are available 24 hours a day, 7 days a week:

call or text 1737 for support from a trained counsellor

Lifeline 0800 543 354 or text 4357

Samaritans 0800 726 666

[Helplines\(external link\)](#) — Mental Health Foundation

[Mental health and wellbeing support](#)

Source Information Provided by:



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PMANZ WEBSITE STATISTICS

For the 3 months between 31 December 2022 to 30 March 2023, PMANZ had 3239 visitors that viewed 5022 pages - that is an average of 1.53 pages per person. This represents a 27 % increase over the same period last year.

And for last 30 days from 1 March 2021 until 30 March 2023, there were 935 visitors that viewed 1538 pages. A 9% increase over the previous period. The top 21 page views are listed below. This gives us a great indication of what pest activity is of current concern to the public.

Page Name	Views	vs Previous
/Home	271	+109.72%
/wasps.html	162	+86.63%
/spiders.html	115	+88.46%
/technicians-by-region.html	81	+103.85%
/click-beetle.html	80	+54.42%
/ants.html	68	+68.69%
/company-list.html	63	+225%
/urban-pest-management-qualifications.html	53	+74.65%
/find-a-professional.html	52	+120.93%
/flies.html	40	+43.96%
/tropical-house-cricket.html	36	+102.86%
/mice.html	35	+106.06%
/members-area.html	34	0%
/about-us.html	34	+100%
/pests-and-information.html	33	0%
/join-us.html	27	+79.41%
/rats.html	25	+96.15%
/alphabetical-list-of-registered-technicians.html	24	+92.31%
/code-of-practice-for-the-food-industry.html	23	+143.75%
/news.html	22	+115.79%
/contact-us.html	21	+91.3%
/controlled-substances-licence.html	20	+83.33%
/cockroaches.html	19	+79.17%
/bees.html	18	+50%

NEW ZEALAND TECHNICIANS FORUM

This is what happens when you don't use your boat for the summer...wasps start setting up home!



With the disrupted summer we have had Mike Collins has not been able to use his boat over the summer but, decided to eventually get it out on the water in the calmer month of March, only to find that wasps had set up home inside the tow bar, and what a beautifully created one at that! After noticing several wasps flying around the tow ball over a few weeks Mike decided to have a look and noticed the nest inside the channelling by the tow ball. The nest was very well protected and out of the prevailing wind a great little home for the wasps.

Mikes brother Dave, also a PMANZ member had a can of Aerothor in his Ute and attacked the nest with a good spray that delt to the wasps and destroyed the nest. Mike then removed the nest. It was a perfectly formed one which one can only marvel at natures ability to create such pieces of synergy. Unfortunately for the wasps the nest had to be destroyed as there were young children living next door with open access and of course Mike and Dave wanted to head out fishing for the day...

A member wants to caution all our members to be aware when using Bifenthrin around pets and elderly people.

A member called PMANZ in mid-march to ask if we had heard of issues from Bifenthrin, as he had a complaint from a client (a doctor) that her dog started vomiting, and her elderly mother was suffering facial irritation after he treated their home for flies with Bifenthrin.

After discussing the issue with him, it became clear that he had carried out all the correct risk assessments before treatment i.e., discussed with her about vacating the home during treatment, adhering to re-entry times back into the home, and so on. He is a responsible member that has been doing pest control for over 10 years.

The dog was taken to the vet and blood test taken, but no poisoning found from that test. After discussion with the PMANZ technical team and his client he decided, 'discretion is the better part of valour' and offered a 50% reduction in the bill, whilst still maintaining his professional responsibility to the Safety of the treatment. She accepted this and the matter has been resolved.

We have all been in these situations before and it's never easier to quell our clients' reaction when things go wrong. It is accepted in the industry that insecticides that end in "rin", e.g. Bifenthrin, Deltamethrin, Permethrin, Pyrethrin etc... can have an allergic reaction, such as paraesthesia, to some people particularly elderly folk. In worst case scenarios it can lead to wheeze, cough, difficulty breathing, and irritation of the airways.

In 2018 PMANZ advised members about the death of someone's pet cat, as well as to allergic reaction to Pyrethrins. But dogs were generally considered safe around these insecticides, until now.

PMANZ did some homework on Bifenthrin and came up with a factsheet from the [National Pesticide Information Center](#) which says, I quote:

"Exposed pets may experience single-episode vomiting or diarrhea, reduced activity, twitching of the ear, paw flicking and increased drooling. Other signs can include hyperactivity followed by incoordination with diarrhoea, depression, and dilated pupils. Some veterinarians have reported additional signs such as chewing, head bobbing, partial paralysis, and tremors."

"When bifenthrin gets on human skin, it can cause tingling, itching, burning, or numbness (paraesthesia) at the site of contact. The sensations usually go away within 48 hours."

The member acknowledges that he was asked to treat (mist) the whole house, and now, in hindsight, realises that the elderly lady probably picked up residual bifenthrin onto the skin from the bed covers, and the dog from lying on the carpet that in all likelihood licked its coat thereby ingesting the insecticide. Albeit, in both cases small doses, it was enough to trigger an allergic reaction in the elderly lady and the dog. So be CAREFUL out there!

See next page for additional information on Synthetic Pyrethroids

More about Pyrethroid Symptoms of Exposure

In general, these insecticides are low in toxicity to people and other mammals. However, if it gets on your skin, it can be irritating. It can also cause tingling or numbness at the site of contact.

Anecdotally it is not uncommon for some people to complain of a range of symptoms from such exposures. There is general agreement that a period of several hours (ideally at least 24 hours) should be observed between application and re-occupation of the building. Spray droplets can settle on furnishings, causing potential ongoing skin exposures, but it appears that re-entrainment of particles into air is minimal.

In the five year period between 2008 and 2012, the **New Zealand National Poisons Centre** (NZNPC) received 1544 enquiries about synthetic pyrethroids; 106 of these were from medical centres. Medical centres enquired about a range of pyrethroid products including agricultural insecticides, household aerosol fly sprays, household bug bombs and household liquid insecticides.

Typical calls included:

- A patient who developed immediate nausea and rhinorrhoea, and a delayed skin rash, when treating livestock with a cypermethrin (synthetic pyrethroid) product without using protective measures
- A patient who developed a burning and tingling sensation on his face and neck after spraying his house with a pyrethroid insecticide
- An asymptomatic child who briefly activated an aerosol spray into her mouth.

Source [The Best Practice Advocacy Centre New Zealand](#) (bpacnz)

Click [HERE](#) to read full PDF article



Technical Hints—Cockroaches: Fact or Fiction?

Because of their close association with humans, cockroaches have enjoyed a prominent place in human evolution, culture, science and mythology. Legends abound about the strength, prowess and survivability of the cockroach. So what is true and what is not?

Some Myths—Fact or Fiction?

1. Cockroaches can run faster than humans. Not really, they can run about 3 mph, which is about walking pace for humans. If speed were factored by size, the cockroach would certainly have the advantage, but then you'd also have to consider the fact that they have six legs while humans have only two. All that said, though, cockroaches can run faster than any other insect.

2. A cockroach can live without its head. This is, in fact, a truth – at least for a week or so. The circulatory system of the cockroach is different than that of humans, so a clot is formed at the site of a wound (or completely severed head), so it would not bleed out as we would. Additionally, because it has multiple "brains" along the ventral nerve cord that process sensory input or control motor functions, and it can breathe through holes in its body segments, the cockroach can continue to live until it needs food or water. Without a mouth, it has no way to get this sustenance.

3. Cockroaches can swim. Yes, the American cockroach can swim almost four inches in a second and "hold its breath" for 40 minutes. So, because this cockroach is known to inhabit sewers, it is, indeed, an unfortunate fact that they can come into a home from the sewer system, making their way through plumbing traps and swimming up into toilets.

And the ultimate factoid ... True or False? Cockroaches could survive a nuclear explosion. The answer - Maybe. Factoids about cockroaches and nukes are so common that Discovery Channel's MythBusters took on the challenge to test its validity. Their finding: "Plausible." Here's why: Using German cockroaches as their subjects, the MythBusters exposed three groups of cockroaches to

three different levels of radioactive metal cobalt 60 for a month: 1,000 (which would kill a human in 10 minutes), 10,000 (about the radioactivity of the Hiroshima bomb), and 100,000 rads. The results: After the 30 days: 50% of the group exposed to 1,000 rads and 10% of those in 10,000 rads were still alive, but all those exposed to 100,000 rads died. Thus the "plausible" verdict – cockroaches could survive an atomic bomb depending on its intensity. Additionally, since only the German cockroach was tested, which is one of the smallest species, there is plausibility that other species could survive at even greater levels.

A similar verdict was reached by Purdue University Professor of Urban Pest Management Gary Bennett: Will cockroaches be the last surviving creature on this earth? "Who knows – could be true, considering their adaptability."

Source: PCT— Read more [HERE](#)

Technical Hints— Sustainability by Paul Chapman

Be Sustainable - Recycle your Empty Plastic Bait Containers

Don't burn or dump – It's free to recycle!

Agrecovery provides free recycling for plastic containers from over 3000 of the most common ag-chem, animal health and dairy hygiene products sold into the New Zealand market.

It's a Four Step Process:

1. Step One - Prepare

Prepare your containers

Containers must be:

Plastic, 0-60 litres in size, with lid removed

Free from chemical residue and dirt inside and out – triple rinsing is recommended and the container must be well drained

2. Step Two - Brand Owners

Only containers from participating brand owners are free to recycle. Look for the Agrecovery logo on the pack or check our brand owner listing. Please leave the label on for identification at the collection site.

Most Rodenticide Supplier Brands are accepted, but check [HERE](#) before dropping off

3. Step Three - Find

Find your local collection site

There are over 160 collection sites nationwide, plus collection events in areas without a permanent site.

Large users (500+ containers) can request on-property collection.

Check for your closest site [HERE](#)

4. Step Four - Collection

Take your containers to site

All containers are inspected before they can be accepted to ensure the health and safety of site and processing staff, and to ensure plastic is not contaminated for recycling.

If you aren't already an Agrecovery member, you'll need to register as a member in order to recycle your containers – it's free and easy!

Just click the link below to register.

[Become a Member](#) of Agrecovery

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