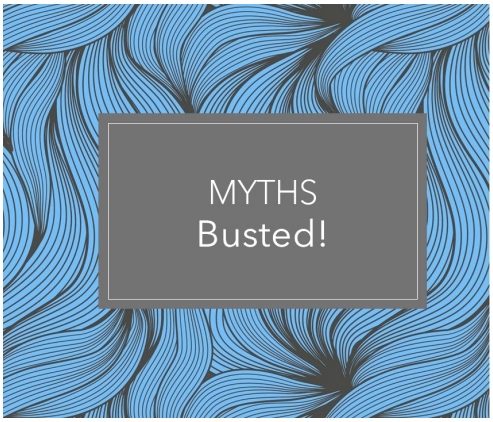
WHAT'S BUZZING?

News from the World of Pest Management

Myths Busted

William H Robinson, Professor and Director of the Urban Entomology Research Centre



A Multifaceted Approach to Rodent Treatment

The Importance of Pest Management in the Food Industry

Fall armyworm (FAW) invade House in Kaipara

DIY Rodenticide Poisoning

What's Buzzing

June 2023 Volume 16 No. 3

PEST MANAGEMENT pmanz ASSOCIATION of NZ

What's Buzzing Contents

FROM THE EDITOR

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During the winter months, urban premises face unique challenges when it comes to pest management. While some pests become less active in colder temperatures, others seek shelter and warmth indoors, posing a threat to homes and businesses.

This winter has been no exception and we have had all sorts of pest still being active. I have heard from members that wasps, ants and flies are still around, whist our favourite winter rodents seem to be still quite scarce. Somebody suggested they have all drowned in the extended flooding….

Yes, have a laugh, but who knows for sure!

In spite of this we thought we would remind everyone about our different rodents in NZ and some enlightening facts about them. Read about them in 'Know Your Rodents'.

There is also lots of news and exciting products coming out this winter from new mice traps to bed bug monitors and the usual product lines. You can read all about them in this issue.

One of the most disturbing stories is the number of children that are coming into contact with DIY rodenticides. We got some statistics from our National Poisons Centre which make for scary reading. We thus fully support the Ministry of Primary Industries (MPI) drive to restrict DIY anticoagulation sales that can be bought from the many stores and supermarkets. We will keep members informed as we continue to go through the consultation process with them.

Happy reading

Warm regards

Peter

Winter Morning, Hanmer Springs, South Island

President's Pen

Maihi Cooper

Kia ora PMANZ members and other interested readers,

Welcome members, suppliers, family, friends, animals, and pets to the third edition of the PMANZ newsletter for 2023. Please enjoy and share the articles and information you will read and thank you to all who have contributed and those who continue to support this newsletter.

Once again these past couple of months of wild weather conditions across Aotearoa New Zealand have seen another state of emergency declared in Auckland, recent flooding in Wellington streets and unfortunately a continued negative effect on many businesses and households.

As a pest manager you will spend a lot of your time driving between customers, so my safety moment this edition is to take extra caution when driving in wet weather conditions and give yourself a bit more time between jobs. I always remember a saying my dad used to tell me when I was in a rush, “Son, it's better to arrive at your destination late, then arrive dead on time”. With that said, please take care on the roads and drive to the conditions.

Thank you to all of you who completed the PMANZ training survey in April. We had a really good response rate along with some really great feedback. We will be using this survey feedback to guide the PMANZ council through conversations at the next council meeting to focus on training and development needs highlighted in the feedback. I am committed to focus the council on a training agenda that will support your work in our valuable industry and you can read more about the feedback in this edition.

You may have heard recent radio advertisements regarding the Commerce Commission advice around being aware of the laws that control how industries such as ours operate. It is important for me as your chairman to be aware of these laws and create the culture in PMANZ so members know how to comply with these. You will notice in the upcoming AGM and ongoing council meetings that these will become part of the way we run the association to remain compliant. Please reach out to us if you have any feedback regarding how PMANZ is doing or if you have any concerns let us know.

I'm glad to report it's been a successful year of Membership renewals with the new system coping with the invoicing, issuing of new certificates and migrating the old system to the new. As you explore and become familiar with the new website and membership area do contact us if something isn't right or if you need guidance to make the most of it for your business. We have invested in this design to improve how we manage the association and we look forward to the opportunities it has to offer to you all in the future.

New memberships keep coming in over the past 2 months, but with David Warrick being away overseas until end of May, I don't have the actual numbers and new members details for you in this issue. Apologies...

That's all from me for now,

Ngā mihi nui,

Kind regards

Maiki

PMANZ President

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PEST CONTROL MYTHS THAT NEED BUSTING

William H Robinson

Urban Pest Control Research Center

It ain't so much the things

you know that get you in trouble,

It's the things you know that just ain't so.

Professional pest management has a collection of beliefs, myths, and misconceptions that have followed it around the world for years. The basis of many of these myths is they are 'logical to assume'. People say things and believe ideas because they seem plausible or the ideas fit with what they've been told, and they pass it on. Most are harmless, but some are not because they can influence applications or expectations. Many of these are passed on by a mentor to new technicians during the traditional on-the-job training. Then the next generation has a set of them. It's time to put an end to some of these. Buckle-up, there's a good chance some of these have been passed on to you.

Cockroach Sticky Traps

- *The location or direction cockroaches are facing on a sticky trap **does not** indicate the direction of the harborage they came from.*

Cockroaches forage in any direction after leaving the harborage, not in one direction. Males and large nymphs travel the most and the furthest and enter sticky traps randomly during those travels. However, a trap with a captured female cockroach, especially one carrying an eggcase, may indicate a nearby harborage. Use sticky traps to indicate a nearby infested harborage when there are females captured.

- *An empty sticky trap, or one with only a few captured cockroaches **does not** indicate control was achieved or there's only a small infestation at the account.*

German cockroaches move along edges and rarely in open spaces. Traps placed along baseboards or cabinet edges are the most effective in intercepting cockroaches. However, traps placed 2 cm (or more) away from the baseboard will capture significantly less roaches. This careless placement can give a 'false reading' of a low infestation and influence treatment strategies. Pay attention to trap placement.

Caulking for Cockroach Control

- *Caulking the crevices along kitchen sinks and cabinets **does not** increase German cockroach control.*

The assumption is that filling visible crevices would deny cockroaches entry into harborages and increase control following a spray application. Research showed that this isn't true. It's the narrow, 4.7 mm crevices inside the cabinets that are the primary harborages—not the ones you can see. The real harborages are too small to locate and too numerous to eliminate. Caulking for cockroaches is classic because it 'seems logical'. But there is no data to support this idea and it can waste time and material.

Article continues after advert

Vacuuming for Cockroach Control

- *Using vacuums **does not** increase German cockroach control.*

The common assumption is that a vacuum hose in the hand of a service technician is going to be able to pull a large number of adults and nymphs from 'a pocket' (= harborage). This is not based on data but simply sounds logical. The reason caulking doesn't work is that the harborages are too small to find—the same applies to vacuuming. There's no data for vacuuming—it's not something to rely on for control.

Cockroach Baits

- *Gel baits exposed to insecticide spray or dust **are not** repellent to German cockroaches.*

After the introduction of cockroach baits, the first 'logical assumption' was that bait placements would be contaminated by spray droplets or dust and then would repel cockroaches. Research showed that it doesn't happen. Cockroaches readily consume bait that has been exposed to sprays and dusts. Progressive pest management companies understand this and have developed programs that integrate spray and dust applications along with baits.

- *Gel baits that develop a hardened covering after application **are not** avoided by cockroaches.*

The water content of baits is high and this makes them attractive to cockroaches. But 50% of the water is lost in the 48 hours after application. This loss is not a problem because it increases the concentration of the active ingredient in the bait, which can make the bait more effective. The water loss may create a thin 'skin' surface on the bait. Research showed that this covering did not deter German cockroaches, even small nymphs, from eating the bait.

- *Gel baits that are several days, a week, or months old **are not** avoided by cockroaches.*

The teeth on the mandibles of German cockroaches are sharp and strengthened with iron—the German cockroach is the only cockroach with this feature. Research showed that adults and nymphs can eat baits 2 days, 2 weeks, and even 10 months after application. Separate tests showed that small nymphs can eat old bait with a hard covering. The persistent myth that cockroaches don't eat old bait is not true.

- *Bait stations handled by technicians that smoke cigarettes **are not** repellent to cockroaches.*

The nicotine repellency myth emerged soon after the introduction of small plastic bait stations for cockroach control. Research showed that there was no basis for this assumption. High concentrations of nicotine solutions applied to bait stations did not deter adult or nymph cockroaches from entering the stations or eating bait.

Insecticide Rotation

- *Rotating the insecticides used for German cockroach control **will not** guarantee prevention of resistance.*

The insecticide rotation concept emerged spontaneously in 1990 without any supporting research. It was presented in a trade magazine article and not in a scientific journal—because there was no data to support it! There is still no data to support this idea, but it is standard advice for cockroach control around the world.

This idea arrived fully formed with a 6-month rotation schedule for cockroach infestations, and a list of eligible insecticides. The original concept was untested on field populations of German cockroaches, and there is no current data that shows rotation has any influence on resistance. The author of the rotation plan for cockroaches cautioned that the scheme was untested and may not work.

To avoid the marketing hype and busywork of changing products, toxicologists recommend the best strategy is to use a product for as long as it's effective and then change. This is the 'don't fix the unbroken radio' philosophy that we all know.

Clean Up for Control

- *A thorough cleaning of an infested site **will not** result in reduction of a German cockroach infestation.*

The typical cause given for residential infestations is a messy kitchen. The typical recommendation is cleaning would prevent or solve the problem. Research shows that it may not work that way. A cleaning program was tested in urban apartments; it consisted of 10-12 hours of intense cleaning to start then 2 hours per visit, twice a week for 4 weeks. At the end, there was no significant reduction in the cockroach infestation. This shows how difficult it is to remove all potential cockroach food in an apartment. But it's not about the food scraps. It's about the water. A German cockroach can live 6 weeks without food, but only 42 days without water.

Pin-to-Cone Nozzles

- *Using a pin-to-cone nozzle to spray a flat surface is **not better** than a fan spray nozzle.*

Technicians believe that an adjustable pin-to-cone nozzle is better because the flow rate is often less and the coverage is better than a flat fan nozzle. Wrong. The pin-to-cone was designed for spraying above plants. On flat surfaces it results in over-application and drift. Drift from these nozzles can be 14% of the spray droplets. That's wasted product and a threat to non-target surfaces and insects. Stop doing that.

Wood Treatment

- *Solvent-based insecticides **do not** penetrate wood better than water-based formulations.*

It seems perfectly logical that oil or solvent-based insecticides will penetrate wood better than water-based. Research shows that this is not true. Penetrating seasoned wood (hardwood or softwood) with any liquid is difficult, and 1-2 mm is the typical depth that an insecticide is carried into wood (including borates). The wood moisture content of the wood, high or low, does not influence penetration; the age of the wood does not influence penetration (so don't over-apply because you think the wood is old and 'dry'.

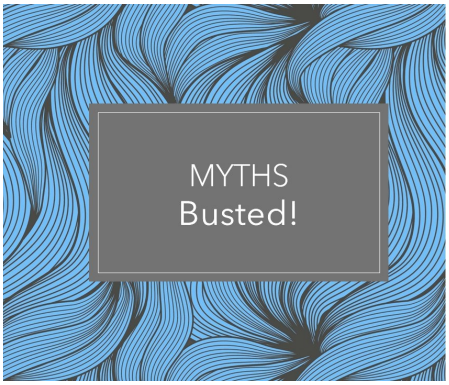
Atomic Blast

- *After an atom bomb blast, the cockroach **will not** be the only survivor.*

As proof of their invincibility, the German cockroach is always given as the only survivor of a nuclear blast. It makes for a great story, yet dubious distinction for the pest we all love to hate. Alas, the No. 1 survivor would be the Pharaoh ant. It can withstand 225,000 rads (rad = unit of absorbed radiation) and still moving and looking for a house to infest. This small ant is followed by the body louse, the bed bug, and finally the German cockroach (90,000 rads). People can only withstand 600 rads.

Never mind the atomic bomb.

The body louse, bed bug, and German cockroach have all developed high levels of resistance to common insecticides—that's trouble enough for the planet.



more than a membership
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Who do I contact at PMANZ about…

PMANZ Membership Enquires

Please note that the executive secretary David Warrick, handles all membership renewals, certificates and ID cards as well as provision of vehicle stickers.

He may be contacted on:

EMAIL: info@pmanz.nz or

FREEPHONE: 0800 476 269 (0800 4PMANZ)

News Release

Envu's Temprid 75 – Delivering True Broad Spectrum Pest Control

[May 30th 2023]

When selecting a general-purpose insecticide, it is crucial that it demonstrates effectiveness against the five primary pests: ants, cockroaches, spiders, bed bugs, and flies. However, you never know what you may uncover during an inspection, so a reliable 'go to' product must also provide control of minor pests such as fleas, clothes moths, millipedes, mosquitoes, silverfish, carpet beetles, and stored product pests.

Temprid 75 is a general residual insecticide, registered for the control of over 15 pests. This means that pest managers tackling general pest issues can rely on a single spray product in their toolkit to address a wide range of pest challenges.

Temprid 75 is a suspension concentrate that provides a unique dual mode of action, by combining two powerful and effective residual insecticides, beta-cyfluthrin and imidacloprid. Through the implementation of HAS Technology (Homogenized Active Solution), Temprid 75 integrates both active ingredients using a unique milling process, to ensure the two actives work together to maximum effect.

Temprid 75 was first launched in the U.S market, where its performance has resulted in market leading positioning, especially for bed bug control. Temprid 75 has now been on the market in New Zealand for over seven years, in that time establishing itself as a leading product for professional pest management.

Temprid 75 has outstanding residual performance when applied correctly. For fleas and many of the minor pests, every effort must be made to try and locate the source of the problem and potential harbourages. This will often mean a very thorough inspection and moving furniture, boxes and clothes. However, locating the source of the problem can be difficult, so treatment of all likely habitation areas with a fine insecticide mist, is key to success.

The main active ingredient in Temprid 75 is Imidacloprid which combined with Beta-Cyfluthrin generates a synergistic effect (one active enhances the potency of the other), that has a very powerful killing action on fleas and other pests. However, Envu also recommends tank-mixing Starycide® Insect Growth Regulator with Temprid 75. Envu has carried out compatibility studies with these two products and they are fully complimentary in a tank mix.

Starycide, contains the insect growth regulator, Triflumuron, which is a chitin synthesis inhibitor. Although used regularly in flea management, its mode of action makes it ideally suited for inclusion in treatments targeting insects that have an incomplete metamorphosis, such as cockroaches, silverfish and earwigs. The combination of Temprid 75 and Starycide in general pest treatments delivers a unique and powerful, residual treatment based on three different modes of action.

To find out more about Temprid 75, click **here**. To find out more about Starycide, click **here.**

Advice continues over the page

About Envu

Envu was founded in 2022, a new company built on years of experience, for the sole purpose of advancing healthy environments for everyone, everywhere. Envu ANZ offers dedicated services in: Professional Pest Management, Golf, Ornamentals, Industrial Vegetation Management, Lawn & Landscape and Range & Pasture. Across each of its lines of business, Envu focuses its work in chemistry and beyond, collaborating with customers to come up with innovative solutions that will work today and well into the future. Globally, the Envu portfolio consists of over 180 trusted and well-known brands. The company employs nearly 900 people and operates in more than 100 countries with four global innovation hubs.

Find more information at www.au.envu.com

Follow us on LinkedIn at https://www.linkedin.com/company/envu-anz/

For further information please contact:

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A Multifaceted Approach to Rodent Treatment

By Peter Barry

Successfully managing rodents requires a comprehensive approach that considers various factors. This includes the products and services employed, customer collaboration and understanding, and the ability to anticipate rodent behaviours.

When it comes to products and services, pest management professionals utilize a combination of tools. These typically include bait stations, snap traps, block baits, exclusion techniques and other effective methods.

However, there is a growing trend among some technicians to incorporate more non-toxic products due to consumer preferences and increasing regulations on rodenticides.

Exclusion, such as sealing entry points and educating customers on simple measures to eliminate food sources and nesting areas, is also emphasized.

Customer understanding and collaboration are crucial aspects of successful rodent control in commercial and residential settings. Some customers may resist necessary exclusion work due to cost concerns. Educating them about the importance of repairing potential entry points and the fact that rodents seek shelter as well as food becomes essential.

Cutting corners and expecting one-time treatments are inadequate in areas where rodents are widespread. A sustained approach is required to effectively manage infestations.

Article continues on next page

An essential skill for technicians is the ability to read and anticipate rodent behaviors. Understanding entry points, travel paths within attics or crawlspaces, and preferred food sources is crucial for devising effective strategies.

Dr Robert (Bobby) Corrigan an expert in rodent control, emphasizes the need for us to think like a rodent to stay a step ahead and be an **Observational Biologist.**

He reminded us at our conference in 2019, I quote:

"Equipment is not pest control.

But, keen observations of the rodent situation where you are, where you stand, at the time you are there, and then skillfully applying quality equipment to match your observations is your obligation for your fee."

Observational Biologists
We must be trained to see what others overlook.
Otherwise, why should they hire us?

"The observational biologist's

on-the-job words to take it to the rodents is...

Shadows, Sebum (grease) trails, Lines, Corners, Warmth, Squeeze point: top and front, Holes and Hair"

See Bobby's Tips for Gaining Control after the advert

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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.

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

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Brodifacoum
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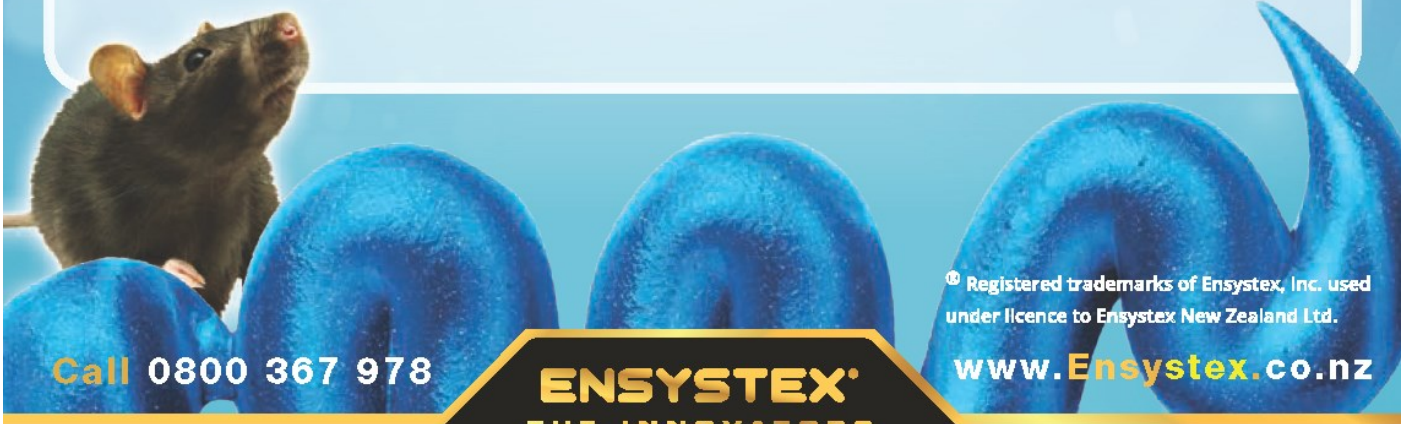

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Bobby's Tips for Gaining Control

Baiting Keys

1. Find the primary runways
2. Sebum (grease marks), hair, shadows, corners
3. Must reduce established food

For Rat Cleanouts

1. Different bait box station sizes
2. Locate the food
3. Connect the lines that lead to shadows

But nobody can help any tech who is simply laying down traps or baits in easy-to-reach ; easy-to-service spots just to get their routes done quickly.

Rats may be NEOPHOBIC.

This means they may be wary animals, often suspicious of items new to their area or territory. This does vary, depending on circumstances, however. Individual animals may be bolder, and the scale of the infestation may mean some animals behave differently. This should be considered when placing rodent bait stations or traps. It is possible they will not be touched by the rat until they have been in place for some time. Equally though, this does not mean bait or trap placements cannot be changed if they are not working. Rodent problems are rarely fixed overnight. There are some lures and tips on overcoming trap or bait shyness discussed later

One local pesty's approach involves thorough inspections using his personal protective equipment, and setting multiple snap traps strategically. Using irresistible baits like crumbled vanilla wafers and small pieces of chocolate, he has achieved impressive results.

Finally, in summary, successful rodent treatment requires a multifaceted approach that incorporates the right products and services, emphasizes customer collaboration and understanding, and involves the ability to anticipate rodent behaviors.

By implementing these strategies, pest management professionals can effectively control rodent infestations and provide customers with long-lasting solutions.

Happy Hunting!

Know your rodents

House Mouse (Mus musculus)

Size – small, up to about 25gms.

Body length head and body – 7 – 10cm

Tail – about the same length as the head and body length.

Ears – large

Eyes – large

Nose – pointed.

Colour – Grey or Brown/Grey

Evidence left by the House mouse:

Droppings – rod shaped, 3 to 6mm, pointy at both ends. Produce 50 and 75 droppings per day

Odour – mice have no bladder and so continually urinate on the surfaces they move across. This obviously can contaminate surfaces they walk over, including plates, cutlery, canned goods etc. Mouse urine is very concentrated and has a very strong and quite "mousey" odour.

Gnaw marks – the marks are quite rough at the edges and the grooves only about 1mm wide

Food preference – Cereals, Grains and grain products and vegetables.

Feeding habit – mice will eat about 3gms per day, the food coming from up to different 30 locations. They do not eat their meal in one sitting, at one place.

Water – mice need about 3mL per day and get their water from the food they eat. They do not require water to drink.

Feeding range – Up to 10 metres

Entry point ability – mice are able to entry through gaps as small as your little finger. This is very small and important to remember when undertaking your inspection.

Mice are generally quite inquisitive and will investigate anything. Again, this can vary from individual to individual, so you can get shy mice. Unlike a rat, the Mice may check investigate anything new in their environment – e.g.– baits or traps. It is likely they will investigate these soon after installation. Catching a mouse in a trap on the soon after it has been set is not uncommon.

Mice will often live and nest inside the house. Examples of areas used as harborage by the mouse:

Under or inside cupboards and behind panelling.

Under major kitchen appliances (refrigerators, ovens, dishwashers etc)

Know your rodents

The Norway Rat (Rattus norvegicus)

Size – a thick set body type, up to around 500g in weight.

Body length up to about 40cm (nose to the tip of the tail)

Tail - shorter in length than the head and body length.

Ears – small for the size of the animal and they lay close to the head.

Eyes – quite small for the size of the animal.

Nose – round and blunt

Colour – brown fur, scattered with black, lightening towards the underside (no fur on the tail)

Droppings – 16 – 20mm, capsule shaped, blunt at both ends. Produce 40 – 50 per day.

Gnaw marks left by the teeth – about 2mm wide. These may be found on timbers, doors, doorways, other hard surfaces. The marks are smooth and about 2mm wide.

Footprints – front foot = 4 toes, hind foot = 5 toes

Greasy marks – rub marks left on surfaces rubbed against in travelling and gaining access.

Runways – the rat is habitual and consistently uses the one pathway or route. Rub marks or greasy smears. Runway is clear of dust or vegetation, there may be tracks and droppings.

Food preference – meat, fish, cereals and cereal products.

Water – up to around 50mL of water is needed every day. Water is a very important requirement for rats.

Norway rats are omnivorous, eating all of the following:

- Meat and meat products
- Fish
- Fruit
- Vegetables
- Grains

Norway rats will eat around 30grams of food in a day and may consume all their food from the one location, if not disturbed. Water is very important part of the Norway rats' diet; they need to drink about 50mL per day. The feeding range of this rat in many texts has been stated as 50m, however there are many pest managers who claim to have found foraging ranges in excess of 50m. Specifically in rural locations.

Know your rodents continued

The Roof Rat (Rattus rattus)

Size – 150 – 250gm

Body length – up to about 20cm

Tail - longer in length than the head and body length. No fur.

Ears – large, with very little fur.

Eyes – large

Nose – quite pointed

Colour – fur can be brown through grey to black. The underside can be white, grey or black.

Droppings – about 12mm, long and with pointed ends. Produce 40-50 per day

Gnaw marks - found on timbers, doors, doorways, other hard surfaces. The marks have smooth edges and are about 2mm wide

Footprints – Footprints of the roof rat. The prints here are placed at close to their actual size

Greasy marks – rub marks left on surfaces rubbed against in travelling and gaining access, around obstructions on the runways (at heights)

Runways – the rat is habitual and consistently uses the one pathway or route. Rub marks or greasy smears. Runway is clear of dust or vegetation, there may be tracks and droppings.

Food preference – fruit, vegetables, cereals and cereal products.

Water – about 30mL of water is needed every day. Water is a very important requirement for rats.

Access and Entry – rats are able to gain entry through gaps or spaces as that are the size of your thumb. The gaps needed are small and this needs to be remembered when undertaking your inspection.

The roof rat is a smaller rat, very agile and is a particularly good climber. It is often found inhabiting buildings from the lower to the upper floors, ceilings and roof areas, in trees and on ships.

This rat will eat about 30gms per day, and it may be from the one location. Water is very important, and the Roof rat will drink about 25-30mL per day. The roof rat has a feeding range of around 50m. As with the Norway rat, information from pest managers suggests a greater range may be possible.

Kiore (Polynesian) Rat (Rattus exulans)

The Kiore rat is widely distributed throughout the Pacific region but is not common in New Zealand today. Its range on the mainland is limited to Southland, South Westland and Fiordland. It is also found on a number of offshore islands including Stewart Island.

They have brown fur, darker along the spine, and grey and white on their underbelly. As a species they are less aggressive that either of the Roof Rat or Norway Rat. Their food preference is wide and includes:

Vegetables

Fruit

Grains and seeds

Leaves

Eggs

Insects, lizards, and the chicks of some species of birds.

THE IMPORTANCE OF PEST MANAGEMENT IN THE FOOD INDUSTRY

Extracted from the Food Industry Code of Practice 2021

Food security and bio-security will become paramount. All stakeholders will need to become more efficient and resourceful. The agriculture industry will be looking to improve yields on crops and stock, and will also need to focus on reducing food loss from pests.

Food production practices, along with the management of food safety has experienced constant change over the last few decades. Safe and nutritious food is increasingly becoming a sought after commodity the world over. More and more, consumers and governments are demanding food which is free of disease and pathogens.

The Food and Agriculture Organisation in the U.S. estimates that if post-harvest food loss related to pest activity could be reduced by 50%, there would be enough food to feed the world's population.

A 2010 CSIRO analysis indicated 'what rodents eat and spoil globally could feed 280 million people in developing countries for a year (Meerburg et al. 2009a)'

The world's population is now odds-on to swell ever-higher for the rest of the century, posing grave challenges for food supplies, healthcare and social cohesion.

A ground-breaking analysis shows there is a 70% chance that the number of people on the planet will rise continuously from 7bn today to 11bn in 2100 (source: The Guardian UK)

What are the challenges for the food industry?

- To meet the food quantity and quality needs of growing populations
- Meet stricter government food safety and quality regulations
- To comply with increasingly demanding proprietary food safety standards

How can the Pest Management Industry help the food industry?

- Reduce food loss and food contamination from pest activity
- Help the food businesses to comply with increasingly demanding food safety standards and assist them with passing their audits
- Provide pro-active and re-active pest management services via innovation, research and technology
- Provide pest related advice, recommendations and guidance to the food industry, including education and training
- Align our two industries (food and pest management) through harmonisation of procedures, expectations and outcomes

Article continues over page

One of the mechanisms or tools available to all stakeholders within the sphere of pest management to the food industry is the Food Safety Management System or Standard.

What is a Food Safety Management System (FSMS)?

An FSMS simply put, is a set of processes and procedures (checks and balances) in combination or in sequence that prevents or minimises the likelihood of contamination of food. FSMS's provide performance criteria to measure both the operations and practices of the food business and the processes and procedures involved in supplier pre-requisites, including Integrated Pest Management service delivery.

An FSMS can be specific to a particular type of food production sector or to different food manufacturing processes or there are some which are a suite of standards which cover all aspects and processes in the food chain. Many of the food safety management standards also combine a certification scheme for suppliers and/or manufacturers. The original or first formerly recognised international Food Safety Standard was HACCP.

In 1993, Codex Committee on Food Hygiene recognized HACCP as the global standard for food safety and published their first HACCP guidelines, which would be later adopted by the Codex Alimentarius Commission, the joint body of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO).

What does HACCP stand for?

- **Hazard**
- **Analysis**
- **Critical**
- **Control**
- **Point**

What is HACCP and where did it come from?

▪ HACCP is a RISK BASED FOOD SAFETY MANAGEMENT SYSTEM originally developed by engineers and scientists from the Pillsbury Company in the U.S. as a "Zero Defects" program for NASA Astronauts in the 1960's (preventing astronauts becoming ill in space from food borne illness).

▪ The first HACCP Standard was released in the late 1980's by the U.S. National Advisory Committee on Microbiological Criteria for Food.

▪ The first international HACCP Standard was published in 1992 after being adopted by the Codex Alimentarius Commission.

▪ The Codex Alimentarius Commission (CAC) is a collection of internationally recognised standards, codes of practice, guidelines and recommendations related to the production and safety of food. The CAC was established by the Food and Agriculture Organisation (FAO) of the United Nations in 1961 and the World Health Organisation (WHO) partnered with it in 1962.

▪ The HACCP concept and process is based on identification of specific food safety hazards which could cause illness, injury or death if the food is consumed and the implementation of controls needed to minimise or avoid this. In other words, the emphasis is on prevention rather than end product evaluation, inspection and testing.

▪ HACCP is not intended to control all hazards that may impact all or part of the food supply chain. Instead, it is intended to build on existing best practices and quality management procedures employed in these sectors and focus on areas where significant hazards need specific control.

Advice continues over the page

▪ HACCP is really the foundation of all food safety systems and is underpinned by the 7 sequential phases or processes in the system, called the 'HACCP Principles':

Put simply, the purpose of HACCP is to PREVENT FOOD CONTAMINATION

1. **Conduct Hazard Analysis**
2. **Identify Critical Control Points**
3. **Establish Limits for each Critical Control Point**
4. **Develop a System for Monitoring each Critical Control Point**
5. **Establish Corrective Actions**
6. **Establish Verification Procedures**
7. **Establish Documentation and Record Keeping**

Codex defines how these principles are practically applied using a logical sequence of steps. By following each step in sequence, users can develop a HACCP plan which is based on their specific food product and associated processes.

The 7 HACCP Principles are supported by 5 'Preliminary Steps' when an effective HACCP Program is being developed. These are:

1. **Assemble the HACCP Team**
2. **Describe the Food and its Distribution**
3. **Describe the Intended Use and Consumers of the Food**
4. **Develop a Flow Diagram Which Describes the Process**
5. **Verify the Flow Diagram**

Examples of well-structured HACCP based food safety management system standards are SQF Food Safety Code, FSSC 22000 Food Safety Management and British Retail Consortium Global Food Safety Standard (BRC).

Nattaro Scout – Bed Bug Detection and Monitoring System

Fieldwork with leading PCO

After many months of extensive field testing together with a leading Swedish Pest Control Organisation (PCO), Nattaro Scout was released on the market during 2018.

The traps are placed in or near the bed/sofa and other locations relevant to determine the spread of an infestation. Nattaro Scout is until now primarily used for early detection in situations of suspected

infestations and in order to verify the success of the treatment. Nattaro Scout is presently used by the PCO in the following situations:

1. Assist the technician with an early detection of an infestation/introduction. A majority of the technicians report cases of detection at an early stage infestation or introduction.

2. Mapping out suspected distribution in residences or real estate. Besides being found in the sleeping areas bed bugs have also been caught in everything from mattresses on the floors to clutter and in bathrooms.

3. Reassuring the customer. All of the technicians using Nattaro Scout claim that they with the product

can provide the customer with additional assurance. This offers a calming effect and saves time and money from unnecessary additional inspections.

4. Verifying a successful treatment. Technicians have found bed bugs in Nattaro traps five weeks after the final treatment.

Present situation

Today Sweden's leading Pest Control Technicians use the products. The majority of the branches have had catches in cases with suspected infestations or following a completed bed bug treatment. In most cases technicians have used 2-4 traps in or near the bed. Bed bugs have also been caught near other sleeping environments like sofas and mattresses. In cases when no bed bugs have been caught there were also no additional treatments or complaints from the costumer. In these cases, Nattaro Scout have shown to be a great tool in determining a successful treatment or disputing a suspected infestation.

The advantages of using Nattaro Scout

Nattaro Scout has been found a great tool in order to detect bed bugs in cases of suspected infestations and to verify the effectiveness of a treatment. According to PCTs the advantages with Nattaro Scout are:

1. A useful and secure tool for detecting bed bugs.

2. Reassuring effect on the customers.

3. Saving time and money on inspections and treatments.

All the successful cases show how hard and complicated detection and treatment of bed bugs can be. There are PCTs that report catching bed bugs five weeks after final treatment which could indicate that the eggs survived. Some also use the monitoring system to shorten the customer cases by clearing residences faster and with an added security.

For more information see over page and contact PestStop on.

Email: info@peststop.co.nz

or

Phone: 07 213 1317

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Do you have customers who have problems with bed bugs? Do you want to detect or monitor bed bugs in order to identify the problem early? Then Nattaro Labs is the ideal product company for you. We are bed bug experts, and have unique patented Swedish inventions that prevent and detect bed bugs.

PROVEN EFFECT

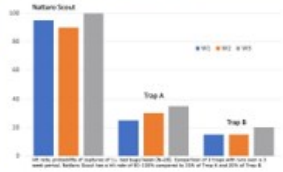
Nattaro Scout™ is a bed bug monitoring system with proven effect. Thanks to its design the monitor is easy to fit on the floor, under the bed frame or inside the bed between the mattresses. The unique lure consists of synthetic pheromones and mimics a normal sized bed bug harbourage (aggregation). The construction is a pit fall trap, where the bed bugs can climb in but not out. When used as a continuous monitoring, the lure should be changed on a regular basis.

- **Immediate release, refresh lure every month**
- **Captures bed bugs of all stages**
- **For early detection, long term monitoring and quality control of treatments**

WORKING WITH THE BED BUGS BIOLOGY, NOT AGAINST IT

Research shows that nine out of ten bed bug infestations starts in our beds, and since the growth rate is exponential it is important to discover an infestation early. The Nattaro Scout device captures all stages of bed bugs, making it a useful system for professional pest control technicians. Thanks to its design, the product is easy to work with and fits well where it is needed, whether under the bed, on the floor or between mattresses. Use Nattaro Scout to identify an infestation before treatment and as a control to verify the effect of your treatment. The hit rate is 90% or higher, i.e. the probability of a catch.

- **Easy to place between mattresses or by bed legs on the floor**
- **An effective and discrete bed bug trap in any environment**
- **A perfect complement to other pest control routines**



Use Nattaro Scout when you suspect an infestation but cannot find any bed bugs. Use post-treatment to verify that the result has been successful. The lure is especially attractive to female bed bugs.

www.peststop.co.nz - 0800 - 257 326

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News Worth Sharing

Scottish Bill to ban the sale and use of rodent glue boards published

The Wildlife Management and Muirburn (Scotland) Bill has been published, which includes legislation banning the use and purchase of glue traps.

Despite BPCA's efforts to influence legislators, the Bill's current form contains no exemptions for pest professionals.

The Bill (as introduced) includes fines of up to £40,000 and up to 12-month prison sentences for anyone using or purchasing rodent glue boards.

BPCA successfully campaigned to include a licensing scheme for pest professionals in similar legislation in England. However, efforts to secure a similar victory in Scotland and Wales so far have been largely unsuccessful.

BPCA Chief Executive, Ian Andrew, said:

"Scottish and Welsh governments presented the ban of rodent glue boards as a forgone conclusion before they even went out for consultation, so it's no great surprise that this Bill also ignores our concerns".

"We find it disappointing that politicians seem more concerned with protecting rodents than their citizens.

Source **BPCA**— Read Original **HERE**

FLOCK OFF

A Revolution in Bird Management

The Flock Off System is a revolutionary, high-tech and humane solution to stop birds from landing on structures immediately and permanently. Flock Off can help eliminate the costs, risks, health hazards and damage caused by birds, ONCE AND FOR ALL!

Flock Off has been successfully installed on 10,000+ structures throughout America, Europe, Australia and now New Zealand. These structures include commercial, residential, agricultural, military, billboards, signal towers, solar panels, sports venues and utilities to name but a few.

Flock Off impacts the bird's navigation by creating an Electromagnetic "force field" around any structure that causes birds to simply find it impossible to land. Flock Off is discrete, easy to install, and very effective!

The system is now available in Australia and New Zealand.

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As pest control specialists and an industry supplier to a wide variety of small and large businesses, PestIT's focus is to supply non-chemical solutions to achieve the best possible pest control outcomes. We create, distribute and support our clients with pest control products and systems that are 'cleaner, greener and smarter'. In today's climate, our 'green' approach remains sensitive to managing broader implications for global warming. By choosing PestIT, we help reduced waste, remove chemicals and lead the way forward for smarter technology.

PESTWORLD 2023 October 17–20 Honolulu, HI

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NPMA National Pest Management Association

Registration is Open for PestWorld 2023, Hawaii

Attending PestWorld is about creating possibilities- possibilities to expand your business, grow your career and network, support your customers, and engage in the pest management industry. PestWorld 2023 brings individuals from every facet of the pest management industry from around the globe to share their knowledge, hear different perspectives on business trends, learn the latest technical research, and form lasting bonds within the industry. Join us this year in Honolulu, HI as we come together to connect with one another, be inspired, and learn.

Early-bird registration ends September 6.

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

NOTE: Let Peter Barry know if you are interested in attending as PMANZ can do an international member registration for PMANZ members

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.

Click **HERE** for full hotel details

Hawaii Convention Centre Auditorium

NEW ZEALAND NEWS

Warning to keep rat poisons away from kids as rodents invade homes

Rodenticides can be effective against rats and mice, but they are also the cause of accidental poisonings every year. Photo / Piers Fuller/ The Post

As cold weather moves across the country and rodents head indoors to escape, homeowners are being warned about the use of rat poisons.

According to the National Poisons Centre, more than 1200 people, mostly children, reported rodenticide exposures over the past 10 years.

Recent warm weather and plenty of food was providing the perfect breeding conditions for rats and mice, and experts expected rodents to seek shelter when temperatures turned this week.

Hastings-based pest management operator Gerwyn Jones said horticulture damage from Cyclone Gabrielle fuelled a spike in rodent numbers this year.

“We’ve got so much food in the fields rotting at the moment and the amount of rodent pressure we’ve witnessed in the region, it’s going to be a pretty bad rodent season,” he said.

“The recent flooding throughout many parts of New Zealand will also see rodents displaced and seeking food and refuge.”

Pest management operator Gerwyn Jones said Cyclone Gabrielle was having long term effects on rodent numbers.

Gerwyn Jones

- **Is a Council member of the Pest Management Association of New Zealand (PMANZ)**
- **Is a Hawke's Bay resident.**

Adam Pomerleau of the University of Otago's National Poisons Centre said the majority of the 1200 people reporting rodenticide exposure since 2013 were not seriously harmed.

"Most of the time we're giving advice to members of the public because their toddler was found with a rat bait," he said.

Pomerleau said about 85% of exposures were in children under 16, but they had no data on how many of these incidents led to poisoning.

"Exposure does not always equal harm. We don't have the outcomes for all of these cases."

He said if people were worried about coming into contact with pesticides they should call the Poison Centre on 0800 764 766.

Rats tend to come in from the cold at this time of year.

"An exposure should be appropriately triaged by someone who knows how to do these things, like us. So we can give people advice on whether they seek medical care because the effects of these rodenticides are delayed."

Jones said homeowners needed to be very careful when dealing with rodent baits, which should be enclosed in a childproof container such as a lockable bait station.

Some rodent baits contained a bittering agent such as denatonium benzoate to help prevent accidental ingestion by children.

He said to help prevent the unnecessary exposure to rodent baits by children and pets, people should always read the label and follow all instructions.

"If in doubt contact the manufacturer and ask for advice."

Article continues on next page

Hawke's Bay horticulture was ravaged by Cyclone Gabrielle. Photo Piers Fuller/Stuff

It was important not to throw baits around loosely where they could be found by children or pets, he said.
As a member of Pest Management Association of New Zealand (PMANZ), Jones said pest management operators were best able to deal with rodent infestations.

"A PMANZ registered pest controller has been trained to look at all aspects of the problem that you have, and recommend a course of action not only to control the current infestation but also give you advice on how to prevent this from happening in the future."

Source: Stuff Read Original **HERE**

PEST MANAGEMENT pmanz ASSOCIATION of NZ

Your Seal of Confidence...

PMANZ Biennial Conference and AGM

We are going back to the Waipuna Hotel and Conference Centre for 2024. Lock in dates of Thursday 29th and Friday 30th August 2024. Details to follow later in the year.

PestNetwork celebrates 20 years of Training this Year.

On 18th December 2003 four independent Pest Management Product Supply Companies convened to discuss how to provide better training to the Urban Pest Management Industry in New Zealand.

Each Company was a relatively small New Zealand owned enterprise and expressed their frustration at not being able to do this alone, but maybe collectively, they could do it better.

Those present at the meeting were Allan Riley from ACE BIRD PROOFING; Rosemary Pritchard from CLEANING SYSTEMS; Frank Visser from KEY INDUSTRIES and Sheryle Nelson from PEST MANAGEMENT SERVICES .

One of the founding principles of PEST NETWORK was: “the long-term financial security of our customers ensures the overall health and vigour of the Pest Control Industry.

Therefore PEST NETWORK members will undertake to introduce new technologies to our clients that will strengthen their profitability and ensure their long-term financial viability”.

PEST NETWORK came into effect on 13th January 2004 and the first training was held in Whangarei on 3rd May of that year.

In 2006 PestNetwork became the PMANZ endorsed provider of the technical training required to comply with new legislation imposed under the HSNO Regulations 2001. This required that every applicator of Hazardous Substances needed to hold an Approved Handler Certificate in order to be able to purchase or use these products.

That was a dizzy year for PestNetwork, as over 500 Technicians were trained in just one year due to the Approved Handler, 1 January 2007 deadline.

In Auckland alone, 3 training sessions were held that year with 100 attendees at each session.

There have been a few changes over the years, with Pest Management Services purchased by Key Industries and Pacific International Insurance Ltd under the management of Graham Hellier joining as the 4th member. Pacific International contributed several notable trainers such as Keith Farrow and Stephen King.

Sadly Allan Riley of Ace Bird Proofing passed away last year and Pacific International under new ownership decided to bow out of training and insuring the Pest Management Industry in New Zealand.

However PEST NETWORK is still going strong with just two of the original members, Cleaning Systems and Key Industries. Training Seminars are available throughout the Country at several venues to minimize travel costs to attendees. See next page for details.

PEST NETWORK is a not-for-profit organization and the price for attendance is set to just cover the costs of training.

This year marks 20 years since the first training day and 150 attendees are attending in five venues throughout the Country under the PEST NETWORK banner, “Continuing Professional Development For Pest Managers”.

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PestNetwork Training Seminar **Program 2023**

Queenstown, Friday 2nd June, 2023

Mercure Queenstown Resort, Sainsbury Road Fernhill, Queenstown 9300

Christchurch, Wednesday 7th June, 2023

Peppers Christchurch Clearwater Resort, Clearwater Avenue, Christchurch 8053

Wellington, Friday 9th June 2023

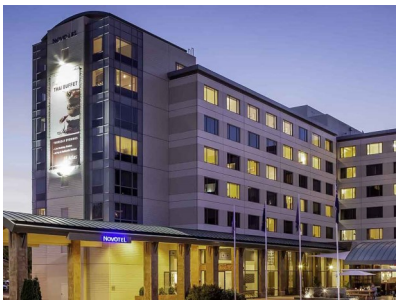
The Angus Inn, 5 Cornwall Street, Hutt Central, Lower Hutt 5040

Rotorua, Monday 12th June, 2023

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

Auckland, Wednesday 14th June, 2023

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



We'll need some serious innovation
by Brent Beaven, PF2050

Photo— Peta Carey; Brent Beaven and Saddleback/tīek

Being predator-free means eradicating every last stoat, rat and possum in the country.

That's a tall order, and it wasn't immediately clear how we might do it.

But following the announcement of Predator Free 2050 in 2016, Kiwi innovators got straight to work, supported by investment from both the public and private sectors.

The ambitious target of PF2050 has already galvanised the innovation community, stimulating research, investment and effort to greater heights.

In less than a decade, pest control has entered a whole new era of cost-effective efficiency and accuracy.

While the hurdles to the ultimate goal might seem high to us right now, the huge technological advances that have already been made confirm that they lower with every breakthrough.

So, what's the plan?

We, DOC, are leading the programme that currently involves 26 national entities, and all are guided by the PF2050 Strategy, which sets out the interim goals that will get us to the ultimate objective. All over the country, designers and engineers are developing new tools that will help meet those milestones.

Article continues on next page

There are two key technical challenges facing us – how to scale up the size of the areas we can eradicate; and how to defend these sites from reinvading predators.

Consider this in the context of the country's difficult topography, and the sheer cost, which means it cannot all be done by manual labour.

Our pest control tools, then, must become smarter, safer and more cost-effective.

Our Tools to Market programme directs $1.4m of investment every year into devices that will do just that, and more. The funding supports the full gamut of steps from proof of concept, through research and development, to prototype testing at a landscape scale. Once proven, they will be available to everyone involved in Predator Free 2050.

It's a complex issue

Eradicating predators is an order of magnitude harder than simply keeping their numbers down, because you need to get every single individual. The ability to do this on the mainland, at a large scale, and then defend those areas from reinvasion is a key focus for us.

Both jobs demand smart, autonomous devices, and Tools to Market is funding just such a thing.

Print Acquisition for Wildlife Surveillance — or PAWS — is a quest for a low-cost sensing device that automatically identifies a range of predator species. It will work a little like a desktop scanner: when an animal steps onto a pad, sensors capture the outline of its pawprint, then compare it to reference profiles in the device's own memory. If it comes up with a match to a target species, the device will automatically alert wildlife managers.

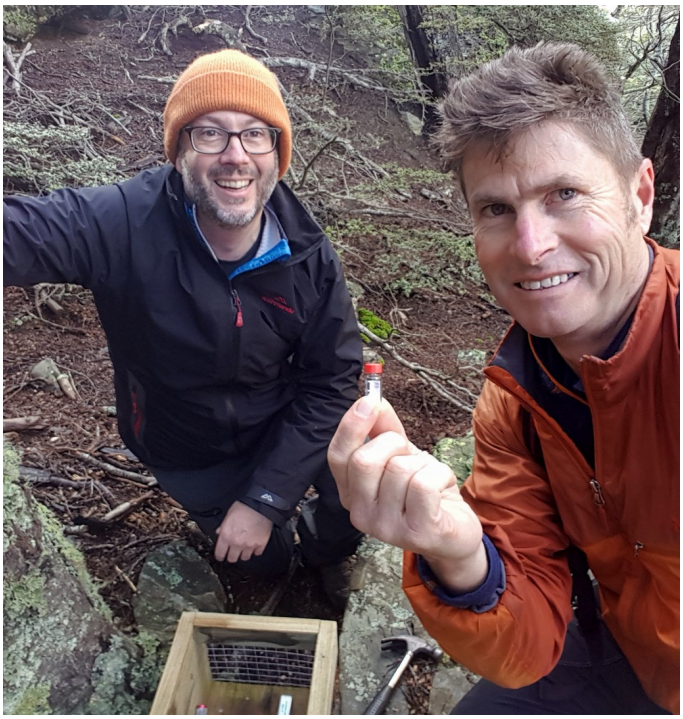
The project is jointly led by Lincoln Agritech Ltd, Boffa Miskell and Red Fern Solutions. PAWS will help us know when we've reached certain interim Predator Free 2050 goals, such as eradicating all mammalian predators from New Zealand's offshore islands.

Photo: Lincoln Agritech; a PAWS® device being laid by Brent Barrett from Boffa Miskell

On another detection technology pathway, ZIP (Zero Invasive Predators) recently unveiled an Artificial Intelligence camera. Atop an A-frame, beneath a kea-proof steel cover, is a thermal camera, aimed at the ground, where ZIP's own 'Moto-lure' automatic dispenser leaves a daub of fresh food lure each day.

A sensor trips the camera each time something comes within view. On-board AI software then runs an algorithm that compares the animal's size and shape against reference profiles in the camera's memory and confirms an ID. If it turns out to be a rat, stoat or possum, the device sends an alert through ZIP's radio network to a ranger's phone.

Article continues over the page



Photo; Wellington UniVentures; Dr Michael Jackson with Phil Green from Wakatipu Wildlife Trust and: Wellington UniVentures; wooden trap box with prototype lure in vial

Clearly, all cameras, sensor pads and traps need an effective long-lasting, attractive lure, and that's been the focus of Wellington UniVentures, the commercial arm of Victoria University. Some food lures work well with rats, but they don't keep well in the backcountry.

Dr Michael Jackson and colleagues have developed instead an encapsulated rat lure based on chemical compounds. A device broadcasts those compounds a little at a time, so that one capsule might last six months or more, dramatically reducing the time and cost of replenishment.

At the end of the day

The second key challenge for PF2050, is changing the scale to "much larger". Our largest New Zealand eradication to date has been Campbell Island, which is approximately 30,000ha. We need to get much bigger than this, and this challenge demands new tools and techniques.

For instance, stoats are presently controlled either directly by trapping — at huge labour cost — or indirectly during 1080 operations. We need a more targeted, stoat-specific toxin, which is why Tools to Market is funding the development of para-aminopropiophenone, or PAPP, for short.

PAPP, injected into fresh mince, is already used in ground control, but to meet the scale of PF2050's goals, it must ideally be spread from the air. So, researchers are working on an encapsulated bait that will both survive being dropped from the air and remain fresh.

Any eradication will rely heavily on accurate, targeted applications of toxins, often in difficult terrain, or in remote locations such as offshore islands. Supported by a $790,000-investment from Tools to Market, Kiwi startup Environment & Conservation Technologies Ltd (ECT) are testing a new, lightweight bait spreader that could be used under a heavy-lift drone. That testing will use non-toxic baits to determine whether such a device could deliver the required target bait density safely and at reasonable cost.

In the backcountry of the future, a PAWS or Artificial Intelligence device might send an alert directly to an autonomous drone, then- guide it straight to the site of an incursion.

Tools to Market is, in effect, investing in ingenuity and imagination, and with each problem those talents solve, we take another step closer to being predator-free by 2050.

I'm looking forward to what the future holds in the innovation space. Watch this space, we'll keep you updated.

Read More about **PF2050 strategy**, including a run through of the tools that are going to get us there, click **HERE**

New Electromechanical Mouse Trap from Liphatech

The **Clash** is an innovative electromechanical and non-chemical mouse trap solution from Liphatech that allows professional pest managers to optimise their rodent control programs. The multi-capture mouse trap works takes the guesswork out of trapping, meaning fewer inspections of customer sites.

The Clash is a compact, robust mouse trap that controls rodents by discharging a fatal electronic charge.

Firstly, a non-toxic bait, such as Liphatech No Tox Soft Bait, is placed in the bait drawer. Curiosity will lead the mice to reach it via the ramp.

Secondly, once inside the trap, the mouse is struck by an electronic shock before being directed towards the hatch. The eliminated mouse remains in the trap reservoir, a hermetically sealed compartment, until it is emptied by the pest manager.

The reservoir can hold up to 25 captured mice.

LED indicators on the top of the trap change colour depending on the number of captures inside. For example, 0-5 green, 5-15 orange and 15-25 red to notify users whether action is required. When the trap is ready to be emptied, the pest manager can do so quickly and efficiently without handling the rodents.

The trap is powered by 4 x LR14-C batteries (which eliminate approximately 365 mice) or a 12-volt transformer.

“The ability of the Clash to humanely capture and store up to 25 mice without smell is a great asset for any control program,” said Kuyan Rider, general manager of Conquer Termites Northside and president of the Australian Women in Pest Management Association (AWPMA).

“The Clash assisted with a problem site where mice were eating stored product inside a rural storage area. Installation of the Clash in the main areas of mice activity was made easy using the battery supply option.”

Captured rodents are stored in the hermetically sealed reservoir

Ms Rider opted to include the Clash as part of the rodent management program for several reasons. Firstly, because a non-chemical option was preferred – the device was to be used in an area frequented by birds of prey (owls), so it was important to eliminate the possibility of secondary poisoning. Secondly, the Clash was also chosen for its immediate capture capability and for having no smell – a more favourable option over snap traps, which require regular inspection and removal of dead rodents. Thirdly, the discreet design of the Clash means customers visiting the premises were unaware of the rodent problem, as the trap does not resemble a traditional mouse trap.

Ms Rider added, "Activity was brought under control with the aid of the Clash multi-capture trap with its large storage capacity. The customer was engaged in the control program and advised when the Clash LED capture light turned red, meaning up 25 mice were captured and a service was required."

The Clash is suitable for tackling individual mouse problems or can form part of an integrated rodent baiting program. At 25cm x 25cm x 25cm and weighing less than 2 kg, the trap is compact, discreet and robust.

Gavin Wilson, Liphatech's technical and marketing manager, ANZ, commented, "The Clash has been developed to meet the increasing demands of pest control professionals who are calling out for innovative mechanical solutions to address the global push towards a reduction in the use of chemicals.

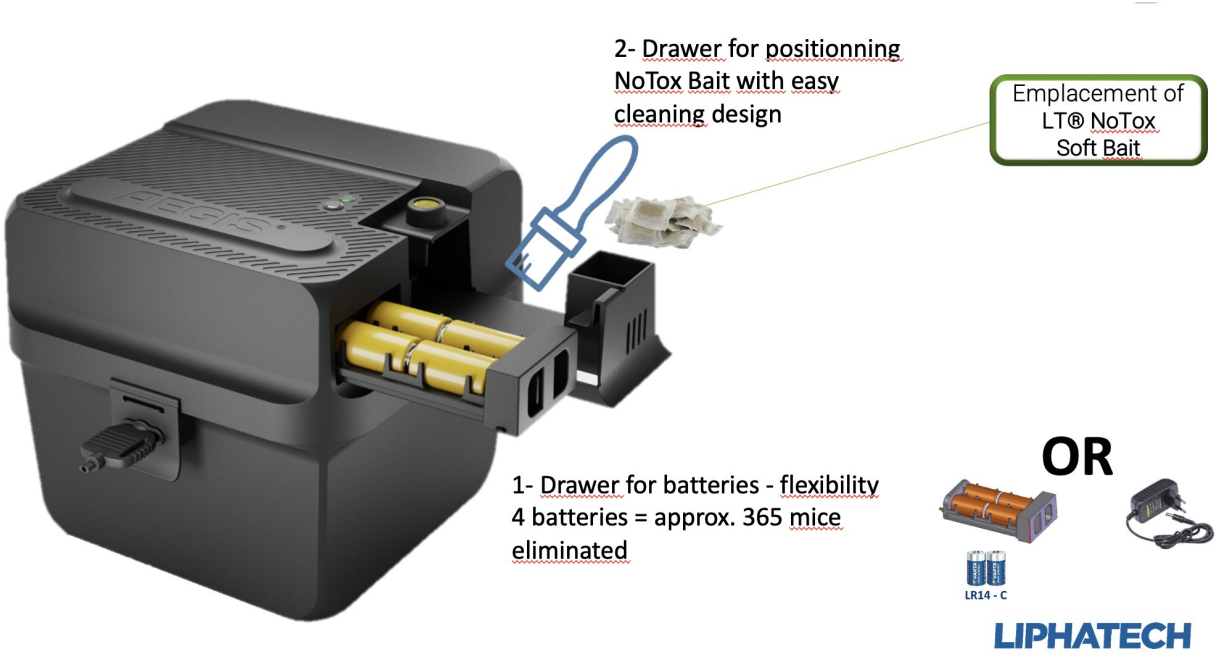
"The electromechanical mouse trap gives all the benefits of a baiting program but is like a trapping program, in that it provides an instant kill. The added benefit is that the Clash humanely kills the mice and has an overall favourable environmental profile. The Clash is a unique trapping device, which unlike other products, can be used in all situations throughout Australia.

"It also provides pest managers with an innovative control solution without any ongoing monthly fees or data collection issues – something we know that pest managers want. With the Clash, the privacy of customers is assured."

The trap is the latest innovation from Liphatech, a company that dedicates 12-15% of annual turnover to research and development. Over the last 60 years, the company has discovered three new active ingredients and bait formulations to provide rodent control solutions for professional pest managers. The development of hardware solutions has been a key milestone for Liphatech, first developing the Aegis range of bait stations and accessories, and now the Clash.

Videos of the Clash can be viewed on youtube. https://www.youtube.com/watch?v=TxPW_39J0cs

Available now from Garrards.



A walk down Memory Lane

Getting rid of the 'cowboys'

Extracted from The Presidents Pen of April/June 2009 PMANZ Newsletter

Volume 2, Issue 01 (April /June 2009)

The President's Pen

Winter has certainly hit with a vengeance and the council has just had its last meeting before our upcoming conference. There was much discussion on the poor performance of some technicians in the various TV segments, appearing recently, and the dismal light it shines on all of us. I personally do not understand in this day and age of promoting reduced chemical usage and fostering of integrated pest management methods why some in the industry still think that using a mister or a fogger in a domestic situation for treatments is acceptable.

Those operators using these methods should take advantage of the bad weather and study the life cycles and behaviour of their target pests and then think about how they could treat their target insect only where necessary. Combine that idea with not treating over food,

Continued on next page 2

Special points of interest:

- PMANZ Bi-annual Conference invitation 2009 (p 4)
- Report to PMANZ Council February 2008—by Eric Van Esson (pp 5-6)
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INSIDE THIS ISSUE

WHAT'S BUZZING?

Pest Management Association of New Zealand (PMANZ)

Winter has certainly hit with a vengeance and the council has just had its last meeting before our upcoming conference.

There was much discussion on the poor performance of some technicians in the various TV segments, appearing recently, and the dismal light it shines on all of us. I personally do not understand in this day and age of promoting reduced chemical usage and fostering of integrated pest management methods why some in the industry still think that using a mister or a fogger in a domestic situation for treatments is acceptable.

Those operators using these methods should take advantage of the bad weather and study the life cycles and behaviour of their target pests and then think about how they could treat their target insect only where necessary.

Combine that idea with not treating over food preparation and eating surfaces, toys, and bedrooms, don't fill spray equipment in the kitchen sink, stop eating the customer's sweets, and just maybe, the industry just might get some good press for a change.

The council has decided that as a matter of course any "pest controller" who appears on TV and shows the industry in a poor light, will if, possible receive a letter from PMANZ letting the company in question know that they need to revise their current techniques and that they should become a member of our association.

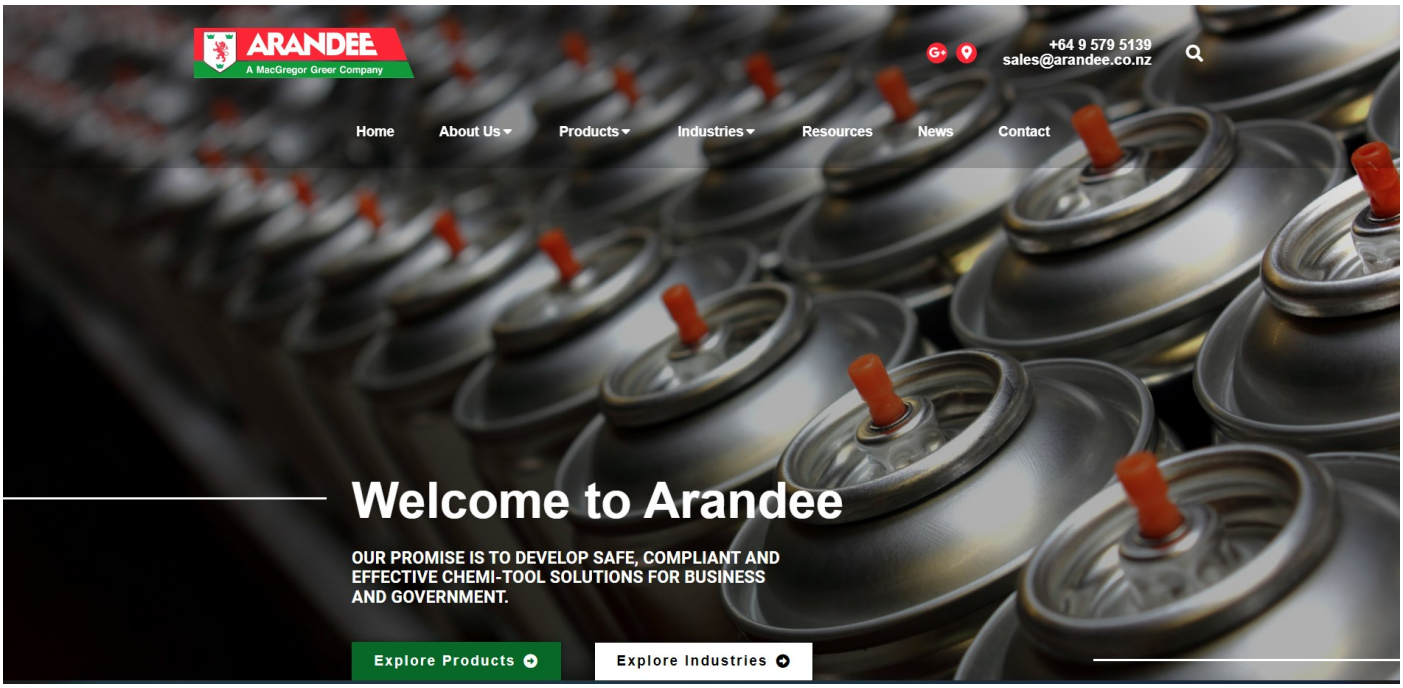
Unfortunately the Approved Handler Certificate and the National Certificate in Urban Pest Management both allow people to operate equally in the industry without needing to be a PMANZ member. As

PMANZ has a requirement that members hold a National Certificate the heart of the matter is, that not all operators are equal, technicians need both qualifica- tions and progressive training throughout their careers.

By promoting membership, our code of ethics and introducing better practices through the National Certificate and the Continuing Professional Development (CPD) system we will be able to help our industry as a whole to become educated, and the profession, respected as are other trades.

Source: The PMANZ Newsletter April/June 2009 Edition

Arandee Launch new website



Arandee was founded in 1972 by Ron Greer. It proudly remains New Zealand owned and operated. Today, **Arandee** continues to develop innovative chemi-tools with a dual focus on product efficacy and compliance. The range carries a high degree of local authority/ government approval (MPI, EPA & AsureQuality) giving the end user confidence that it is safe and fit for purpose.

We are committed to environmental responsibility and ensure that every step of our value chain, from laboratory to customer, adheres to strict internal and internationally recognised guidelines of best practice.

Kmart withdraws wooden trays after Govt biosecurity agency confirms pest infestation

Kmart customers found borer insects in wood products. Photo MICHELLE REICHARDT/SUPPLIED

Kmart has withdrawn a line of wooden trays over concerns of infestations by borer, an invasive wood-eating beetle species.

The alarm was raised by Michelle Reichardt, a Northland mother who found sawdust and holes in her serving tray and alerted the Ministry of Primary Industries (MPI), the government's biosecurity agency.

A spokesperson from MPI said the insect intruder had been identified as Lyctus africanus, also known as the African powderpost beetle, a species not present in New Zealand.

"The importer has recalled the trays pending further investigation and the infested item has been securely destroyed," the spokesperson said.

Meanwhile, Kmart's online listing for the $20 acacia serving tray has been replaced with a message that reads: "Product not found."

A Kmart spokesperson said all the trays had been "secured" to prevent any further release of insects. They said the "intention" was to destroy them, but that would ultimately be a decision for MPI,

"It's not as simplistic as sending them off for destroying immediately. The scope needs to be determined as not all product will be affected."

MPI is investigating after receiving a report that a homeware product from Kmart had been sold infested with borer beetle.

Reichardt made a post on social media that garnered hundreds of comments from people around the country citing similar experiences with products purchased from Kmart.

Advice continues over the page

Danelle Bourgeois found a borer larvae grub in her bowl purchase from Kmart. Photo DANELLE BOURGEOIS/SUPPLIED

Following a story by Stuff others came forward, including Tauranga's Danelle Bourgeois. She'd bought a wooden bowl from Kmart in 2021.

"I was able to hear noises on and off over six months before I accidentally put my finger through the bowl," Bourgeois said.

She captured footage of a large grub gnawing inside the bowl. The bowl was sent to MPI and identified as Kulsi teak borer.

"I called biosecurity when I found it, and they had me freeze the entire thing immediately and sent it to them."

Georgina Drury bought wooden drawer liners from Kmart.

"Bugs were breeding inside it, and ate a hole into our new kitchen drawers. I ended up throwing them out for plastic ones," Drury said.

A spokesperson for Kmart previously told Stuff that wood-eating insects were an "industry-wide issue".

"Given the nature of the insects, unfortunately instances of infestation can occur on occasion.

"We want to assure our customers that Kmart is doing everything we can to address these issues."

Source: Catherine Hubbard

STUFF Environment Read original **HERE**

LANDCARE RESEARCH NZ/SUPPLIED

House borers (Anobium punctatum), only 3 to 4 millimetres long, were introduced from Europe.

Pest control expert Mark McDonald, aka “the Bug King”, said responding to an outbreak of borer was difficult.

Affected wood could be coated with sodium borate, but that only kills borer once it emerges to the surface.

However, he said borer didn’t present as much of a risk to people’s homes as commonly thought because it can only burrow into soft wood or wood that has been exposed to moisture.

Anyone who finds a suspected exotic pest is encouraged to call MPI’s hotline on 0800 80 99 66.

Source: Stuff Read Original **HERE**

Dear WIPM Members,

With the introduction of the first-ever 2023 WIPM New Zealand Excellence Award, the NZ chapter for Women In Pest Management (WIPM) is finally gaining some much-needed momentum and excitement.

The WIPM committee is thrilled to offer our heartfelt congratulations to the finalists of the WIPM Recognition Awards. (See page 44)

The judges were faced with an overwhelming number of nominations, which made their final decision a daunting task. The finalists' stories are truly inspiring, and we have decided to publish a special edition of our newsletter in mid-June to showcase their remarkable achievements. This exclusive release will provide you with a glimpse into the future leaders of this industry and the reasons behind their selection as finalists. We are eagerly anticipating the gala dinner of the Termite Professional Conference in July, where we will reveal the names of the winners. With such an impressive group of finalists, we know that the winners will be truly exceptional.

Despite the invaluable contributions of women in the pest management industry, they continue to face numerous challenges. Women still have limited access to training, resources, and leadership opportunities, which can hinder their growth and development in the field. Our association is committed to promoting gender equality and addressing these issues by organising workshops and implementing policies that cater to the specific needs of women in this industry.

In the coming months, our committee will focus on developing policies that address the unique challenges faced by women who are juggling their professional and personal responsibilities. We understand that women have different needs and priorities, and we want to ensure that they have the necessary support to succeed in their careers.

Moreover, our policies will look at taking measures to ensure the safety of women working in the field. Providing them with information on protective gear and training on how to use it effectively. We believe that by supporting women in pest management, we can create a more inclusive and diverse industry that benefits everyone.

The WIPM committee would like to express our gratitude to Aimee McBean and Nikki De Renzy, our dedicated representatives from New Zealand who generously give their time and effort to the association. We extend a special thank you to Nikki for keeping our team informed about the latest developments in NZ and for her consistent contributions to our monthly newsletters.

Don't forget to read Nikki's piece about the Garrards Roadshow featured in out May newsletter. Despite being relatively new to the industry, both Aimee and Nikki have shown remarkable courage in stepping out of their comfort zones. We commend these ladies for their outstanding work and thank them for their invaluable contributions.

We warmly extend an invitation for you to consider joining the New Zealand branch of the WIPM committee and taking an active role as the Annual General Meeting (AGM) approaches. As a committee member, you can make a significant impact in amplifying the voices of women in this industry and ensuring that their contributions are acknowledged and valued. You will have the opportunity to contribute to the planning and execution of events and initiatives that promote the advancement of women in this field. Your ideas and input will be highly appreciated, and you will work alongside other passionate individuals who share the same cause.

Being part of the WIPM committee not only offers personal and professional growth but also provides an excellent opportunity to network and build relationships with other professionals in the industry.

You will have the chance to connect with pest professionals, industry leaders, and experts in related fields, which can be invaluable for your career development. More information on the AGM can be found in our May newsletter. We look forward to welcoming you to the WIPM committee.

Come July, we'll be hosting our Leadership Development Workshops alongside the Termite Professional Conference on the Sunshine Coast, Australia. We extend a warm invitation to all female professionals in the industry to join us and connect with other like-minded individuals. It's a great excuse for a working holiday just across the waters.

Lastly, we please ask you to stay tuned in the upcoming months as we prepare for a celebration dinner in Auckland to officially launch the NZ chapter of WIPM. This event will also serve as an opportunity to honour and congratulate our finalists and winner of the 2023 NZ Excellence Award. We encourage all PMANZ members to join in and endorse this occasion. We will release more information about this exciting event soon, so keep an eye out!

To stay up to date on the latest AGM, awards, workshops, and events, simply click **HERE** to access out newest newsletter.

Nicky Turner

WIPM President.

CONGRATULATIONS TO THE INAUGURAL NZ EXCELLENCE AWARD FINALISTS!

We extend our warmest congratulations to the finalists of the 2023 NZ Excellence Award. Your exceptional achievements and unwavering dedication have earned you a well-deserved spot among the best and brightest in your field. We wish you all the best as you continue to strive for excellence and make a positive impact in the Pest Management Industry in New Zealand.

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

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:

NEW ZEALAND | BUSINESS. GOVT.NZ

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

Take the stress out of tax

TAX TOOLBOX
Inland Revenue
Te Tari Taake

NEED TAX GUIDANCE

Just click on the illustration to take you to the IRD Tax Toolbox

Training Survey Results

In April we asked you what you wanted to see with regard to ongoing training and professional development. On the following pages and link we have laid out the results:

Q1 Firstly, please tell us a bit about yourself: How long have you been a PMANZ member?

ANSWER CHOICES	RESPONSES	
Less than 1 year	30.43%	14
1 - 2 Years	15.22%	7
2 - 5 years	17.39%	8
5 - 10 years	4.35%	2
10- 20 years	19.57%	9
Over 20 years	13.04%	6

Total Respondents: 46

Q2 Where are you located?

Q3 Please tick the type of pest management service you offer.

Q4 Please tick the type of pests you manage?

The detailed answers to Q2, 3 and 4 have not been published for privacy reasons, But will be available to members on the PMANZ website

Q5, 6 and 7 We asked you to please rate the importance of the following topics on a scale from 1 to 5 (1 = least important and 5 = most important)

We have only indicated the % of you that rated the topic 5

- Pest Biology, identification and distribution - **59.57%**
- New pest management products, equipment, and methods - **72.34%**
- Existing pest management products, equipment, and methods - **53.19%**
- Pesticide control methods to apply to the various target pests - **73.17%**
- Non-chemical control methods to apply to the various target pests –**69.57%**
- Active ingredients and their effects on pests, human health, and the environment – **65.22%**
- Safe storage, transportation, handling, and disposal of products – **56.52%**
- Product label information –**76.19**
- Current legislation regarding safe use, permissions, and operations – **68.09%**
- Pre-treatment task analysis to protect the operator, public, and the environment – **68.09%**
- Environmental considerations and impacts -**70.21%**
- H and S (Job Safety Analysis (JSA) and Safe Work Method Statements (SWMS) -**63.41%**
- Customer Audit requirements (AIB, BRC, etc) - **57.58%**

Training Survey Results continued

Q8 Would you attend a virtual (online) training presentation?

ANSWER CHOICES	RESPONSES	
Yes	82.98%	39
No	12.77%	6
Other (please specify)	4.26%	2

Q9 Would you attend an in-person training presentation?

ANSWER CHOICES	RESPONSES	
Yes	72.34%	34
No	4.26%	2
Depends on the Topic	23.40%	11

Q10 How long would you like the training presentations to be:

ANSWER CHOICES	RESPONSES	
30 minutes	13.04%	6
45 minutes	13.04%	6
60 minutes	34.78%	16
90 minutes	21.74%	10
Other (please specify)	17.39%	8

Q11 What time of the day would you prefer training to take place?

ANSWER CHOICES	RESPONSES	
Monday - Friday, between 8am - 4pm	75.00%	33
Monday - Friday, between 4pm - 6pm	13.64%	6
Monday - Friday, between 6pm - 8pm	11.36%	5

NEW ZEALAND TECHNICIANS FORUM

Fall armyworm (FAW) invade House in Kaipara

In mid May, the PMANZ technical team received the following email from a member:

We are finding army worm nests all over houses and want to know if spraying the nest with insecticide is effective for eradication as we've heard it's not. Our customers are finding these 'buggars' everywhere, not just lawns. We're aware that turf requires a granular product, but lawns are not within our day-to-day pest control work.

We want to know if this process will work with army worms/caterpillars/moths:

- washing the nests/eggs off with our detergent/sodium hypochlorite mix to deal with the eggs, and then;
- following up with the Maxxthor (bifenthrin) exterior spray to deal with moths landing to lay.

We want to provide a solution to our customers and wider community here in Kaipara, and obviously it needs to be an effective one! Both a DIY solution, and one that we can carry out on our customers behalf.

PMANZ responded with this advice:

What you suggest will work to kill eggs/caterpillars/moths on the building surface, but it won't prevent more moths from landing and laying more eggs as essentially the bifenthrin is too slow at killing adults (basically they will lay eggs before the bifenthrin is able to kill them). It's a partial solution at best as it does nothing to stop more moths coming in (i.e., does not reduce the incoming population)

Second issue is that moths/armyworm are not on Maxxthor label, so you have a liability risk (off-label use) that could get you into insurance/HSNO legal trouble if you are specifically treating for armyworm using it. You can use Maxxthor to treat the building for general spiders/flies etc as per usual and accept its presence will kill armyworm on surfaces secondarily as a non-target. However you must be very careful to not state or advertise this, and as mentioned above is really only a partial solution.

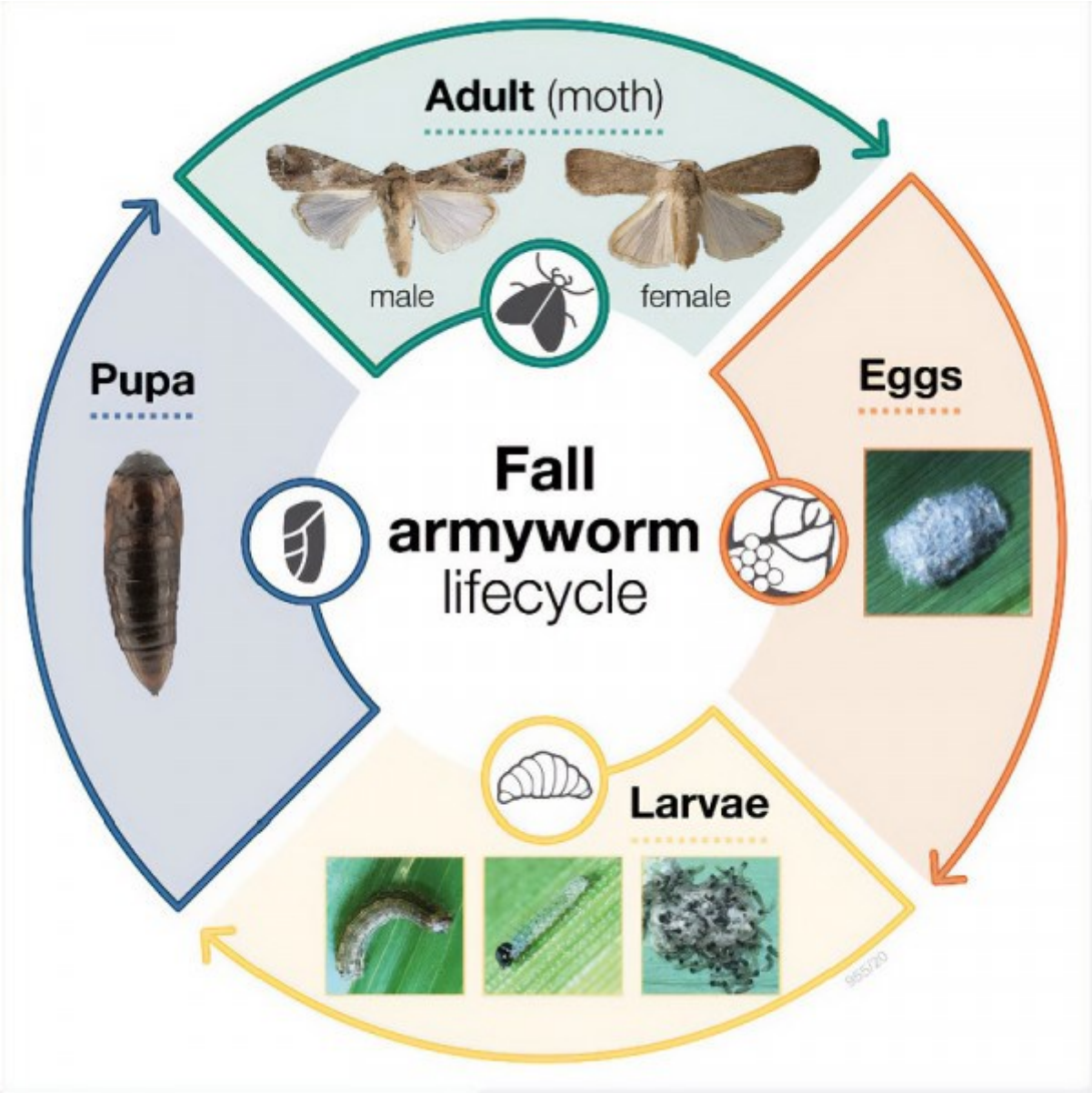
The way to try to reduce incoming moths is to treat the breeding areas (i.e., turf, foliage etc) in the vicinity to drop the population. I'd suggest if customers have a specific armyworm issue, you offer an add-on to your standard treatment where a given perimeter around the house has the turf and foliage treated with specific turf/armyworm products like the below suggested. Other advice would be for customers to switch off outside lights at night (to reduce attractiveness).

Ed's NOTE: Fall armyworm (FAW) is thought to have been carried on wind from Australia, arriving in New Zealand around February 2022. The moth is known to be spreading around the world and is present in the Americas, Africa, and Asia, as well as parts of Australia.1

Read more on FAW **HERE** and see **Life Cycle** over page

Biosecurity New Zealand and sector partners ran a biosecurity response to limit the spread of FAW and try to eradicate it from New Zealand. This included surveillance and research to better understand the moth, its spread, and potential impacts in New Zealand.

By April 2023, it became clear that FAW was widespread, particularly in the North Island, and that eradication was unlikely because it had been wind-blown from Australia, and this is likely to repeatedly occur.



See Biosecurity NZ **FIELD GUIDE** to help you identify a Fall armyworm (FAW)

Technical Hints—DIY rodenticide poisonings?

About a month ago PMANZ received a decision report from the EPA on the new anti-coagulant which included additional information about poisoning by SGAR's.

What really shocked the executive is the amount of people that are calling the National Poison Centre (NPC) due to someone ingesting a rodenticide:

Between 1 January 2013 and 30 June 2022, it was found that 1027 animal exposure reports and 1237 human exposure reports were recorded (with children between 0 –16 years accounting for the majority of exposures). In most human cases, the National Poison Centre did not consider medical assessment necessary.

This really emphasises the importance of the reduction of rodenticides in the retail sector and the tightening of the conditions of use.

Coincidentally around the same time, we were contacted about an advert in a local paper from a non-member pest company selling pre-bait rodent stations direct to public. Upon further investigation we decided to alert the authorities to this as it seemed an unusual amount of bait in the station.

We received a reply from MPI as follows:

Thank you for bringing this activity to our attention. We will investigate and where necessary take appropriate action under the Agricultural Compounds and Veterinary Medicines (ACVM) Act 1997.

Where a non-compliance has been identified, we will initially work with the person or company to bring them into compliance. ACVM does not normally provide specific details, including details of the investigation and the regulatory actions taken, in line with privacy and confidentiality requirements. Therefore, no further details or updates can be provided.

We also have a form you or your members can use to report suspected non-compliant ACVM products.

*The form can be found **here**, and more information about ACVM non-compliance and monitoring can be found **HERE***

It is also IMPORTANT to note PMANZ have been in consultation over the last 18 months with the **Senior Advisor Agricultural Compounds, ACVM Programmes and Appraisals** on the new conditions of registration for Brodifacoum and the remaining anti-coagulant VTA's. We understand this will affect DIY restrictions on use of VTA's to the public as well as professionals like us. We will keep you notified.

Technical Hints— Rodent Bait Handling

Bait Stations

Regardless of the active ingredient in the rodent bait all rodent baits must secured inside a robust, lockable bait station.

Rodent bait stations are designed to meet stringent safety criteria:

- Restricted access (access limited to animals the same size or smaller that rats)
- Stations are strong and cannot be broken or bitten into by dogs etc.
- Children cannot put their hands or arms inside and touch or access the bait.
- The bait is secured into position and cannot be removed by the rodent or shaken loose.
- Bait stations are lockable, to be locked and you hold the key.

To meet the additional requirements attached to rodent baiting under the Health and Safety at Work (Hazardous Substances) Regulations 2017 the following actions are also required:

- Bait stations will be secured to the surface so they cannot be readily removed. This can be done by nailing, screwing, chain, cables or perhaps strong adhesive.
- Bait stations in areas where people work will be labelled as containing rodenticide along with emergency contact information and details.
- Bait stations in external or public areas will be signed and the information provided is to include:
    - ◊ Name of Company (or persons name) applying the bait.
    - ◊ Contact details
    - ◊ Substance identity
    - ◊ State that is toxic to humans, ecotoxic and toxic to other vertebrates
    - ◊ The date the bait is laid.

(Reference: https://www.bionet.nz/assets/Uploads/B7-Signage-2018-04-LR.pdf)