

WHAT'S BUZZING?

News from the World of Pest Management



Ministry for Primary Industries
Manatū Ahu Matua

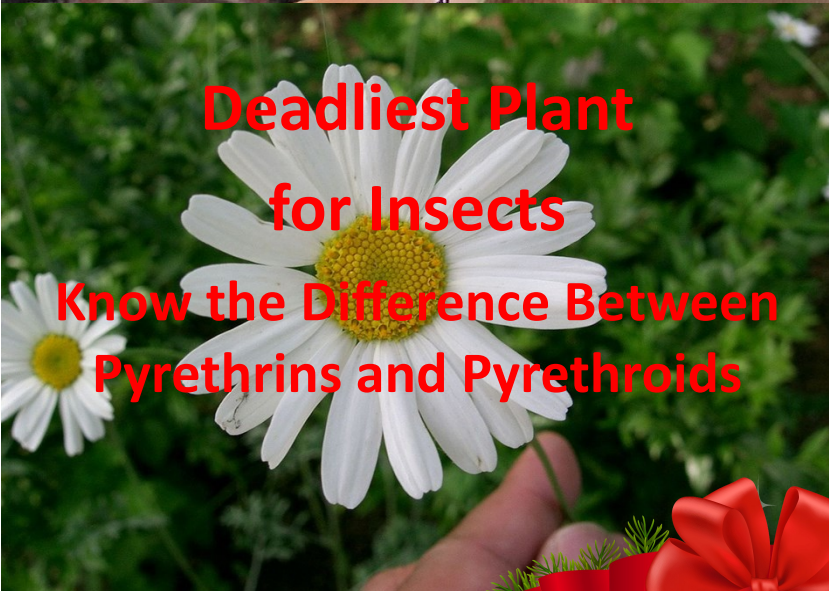
What the Ministry wants from Brodifacoum users next year?



What Happened at Pest World, Hawaii



Predator Free Wellington hits its targets



Deadliest Plant for Insects

Know the Difference Between
Pyrethrins and Pyrethroids



Understanding Filth Flies



What's Buzzing

December 2023 Volume 16 No. 6



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I was privileged to be able to attend PestWorld in Hawaii in October, with my wife, together with a number of well known industry Kiwi's including past president Mike Collins and his wife Kim, John and Viv Van Dyk from Bait Technologies, Frank and Celia Visser from Key Industries and Gerwyn Jones from Pelgar. Most of our Aussie suppliers were there too, including Vaughan Quirke for Garrards.

It's a huge conference with over 3000 delegates that runs over four days with numerous inhouse meetings, educational and technical sessions and a vast exhibition hall of about 200 exhibitors. Most delegates are from the USA, but surprisingly also a big international delegate contingent of almost 200 from all over the globe.

See photos and the full story on page 8.

Closer to home, we have once again a bumper issue full of news and advice from suppliers and experts in our field of pest management.

Of significant importance too, is that PMANZ have been invited to comment on the final proposed changes to the use of Brodifacoum in New Zealand. See MPI's proposed changes summary under NZ news.

Happy summer reading and may you have a Merry Christmas and festive New Year.

Warm regards

Peter



The famous 'Banzai Pipeline Surf Break', North Shore, Ohau, Hawaii



President's Pen Maihi Cooper

Kia ora PMANZ members, suppliers, family, friends and other interested readers.

Welcome to the final edition of the PMANZ What's Buzzing newsletter for 2023.

I hope this edition finds all of our members, whanau, suppliers, friends, and pets safe and sound out there, as we close out another year.

Many of you will be already into treating or preparing for activity of invertebrate pests. Being based in Auckland, I have noticed an increase in flying insects and the ongoing emergence and activity of other pest activities driven by the temperature rise as summer approaches.

If you are new to the industry it's a good idea to understand what pests you are likely to deal with at different times of the year as it will help you prepare accordingly, for those with many years of experience in your hands, you'll know what's coming, so all the very best to all you fellow pest managers.

As we head towards summer and warmer weather there is a high chance you will encounter wasps or bees while carrying out your pest control activities. My safety topic in this edition focuses on wasp stings.

To begin, prevention is always better than cure. If you're called to manage wasps you should always start by assessing the task and think about the appropriate personal protective equipment you will need, such as a protective hood or suit (skin protection) and the right equipment to do the job, such as; duster, ladder, and correct insecticides.

If you're unfortunate to get stung it is good to be prepared for that by having access to a cold/ice pack as a minimum that you can wrap and apply to the location of the sting. Wasps do not leave their stinger behind unlike bees and they can sting many times so again it is important that you've protected your skin as much as possible. If you are allergic to stings then you should definitely have a proper plan in place, and even better, consider not doing that type of work and pass it on to another PMANZ member. In any case, if you sense an allergic reaction you should seek medical attention immediately. Always remember to do a risk assessment before you start the task!

Over the year, the executive council has been busy with many different topics, but the one topic of most importance to me, has been to deliver on our promise earlier this year, to continue to further establish the association in the field of education and training.

In support of this initiative, we successfully amended the constitution in August and have since invested in developing the first of the Continuing Professional Development (CPD) system modules, which I'm proud to announce will be launched in December. This is the start of our focus on education and training materials that will expand to other important topics for members as we move into 2024. I encourage you to log into the PMANZ website and take advantage as a member of these free courses as they become available.

On a related matter, in December, David and I will be meeting with the Community Support Services Industry Training Organisation (CSSITO) board and shareholders to obtain more information about opportunities for grants and how PMANZ can play a role in the future, if we are successful in securing funding. We will keep you posted.

Onto memberships, we are continuing to see the growth in the past 2 months, that is great to have more pest management professionals joining the association.

It gives us a greater presence as an industry in New Zealand and the globe, something to be proud of. We have a current total of 551 in our membership.

Please join me in welcoming the following members:

New Qualified Technicians		
Jack	Grieve	Flick
Dion	Brown	Pestsmart

New Trainees		
Ben	Earney	Ecolab
Simi	Mareko	Ecolab

As I sign off for 2023 as the President of PMANZ, I would like to thank the executive council members, secretary, and treasurer, for each of your commitment of time and effort this year, it is greatly appreciated and I look forward to working with you all again next year. To all PMANZ members please take a moment to thank those people who support you and I do hope you spend some time over the holiday period to relax and enjoy quality time with your loved ones before another year is upon us.

That's all from me for now,

Ngā mihi o te Kirihimete me te Tau Hou

Seasons greetings and a prosperous new year

Kind regards,

Maihi Cooper

Maihi

PMANZ President

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By Peter Barry, Executive Board Member, PMANZ

With acknowledgment and thanks to Frances McKim for additional content and photos

Frances writes for the NPMA.



The professional pest management industry from around the globe gathered at the Hawaiian Convention Centre in the fabulous location of Honolulu for PestWorld 2023 which ran for four days from October 17 - 20.

PestWorld attracted over 3,000 delegates, 600 of which were exhibitors. This included nearly 400 international delegates from 50 different countries from across the globe including for the first time, several representatives from Mongolia.

Organised by the National Pest Management Association (NPMA), CEO Dominique Stumpf greeted guests at the opening ceremony. She explained this was a special year for NPMA as the convention celebrates its 90th anniversary.

She thanked everyone for taking the time to come together as an industry saying: "We are stronger and more powerful when we share ideas and support one another."

The opening ceremony closed with a unique Hawaiian flourish with a performance from traditional fire knife dancers. Thereafter everyone moved to the vast Exhibition Hall.

During the following three days there was plenty of opportunity for delegates to learn and share experiences. There was a choice of over 51 educational sessions delegates could attend with subjects ranging from technical issues such as new strategies for bed bug baiting to termite technology as well as more commercial topics as the growing use of AI and ChatGPT.

The exhibition is always at the heart of Pest-World events and this year it lived up to its reputation with nearly 200 exhibitors attending, not only from the US but also from Europe and Asia. Here delegates could catch-up on all the new developments and products.



BASF had a unique ant to draw you in

With such a large number of international delegates present, there was excellent attendance at the meeting of the Global Pest Management Coalition.

The work of the four working groups covering sustainability, partnership activities with WHO along with the mosquito response plan were reviewed.

PMANZ New Zealand also took an active role and contributed \$1000 to the Maui disaster relief fund. Hawaii has many cultural and language similarities to New Zealand from a historical connection, which our Past President Mike Collins explained to the Global Forum.



Hawaiians Traditional Opening of the Conference

The historical connection between Hawaiians and New Zealand is not as direct or significant as the connections between some other Polynesian cultures. Both Hawaiians and New Zealand Maori are part of the larger Polynesian ethnic group, which shares common ancestry, language, and cultural traits.



Mike Collins addresses the Global Forum



The Global Pest Management Coalition Team _ Mike Collins and Peter Barry are right Back (see arrows)

In addition we had the opportunity to briefly meet with Dr Bill Robinson, who was looking forward to speaking and presenting at our own 2024 PMANZ Conferences.

The public health & food safety group announced their upcoming Global Summit to be held in Florida, US in June 2024 to coincide with World Pest day.

PestWorld events are not all work and no play and there was time for networking and the forming of long-term contacts, specially at the receptions. The international reception sponsored by Orkin proved popular with delegates able to mix and mingle of refreshments and finger supper.

On the final night after the four hectic days, PestWorld drew to a close with a celebratory party at the legendary 'Pink Palace' overlooking the famous Waikiki beach.



From L to R: Peter Barry, Mike Collins and John Van Dyk at the International Reception



The Royal Hawaiian Hotel, AKA The Pink Palace overlooking Waikiki Beach

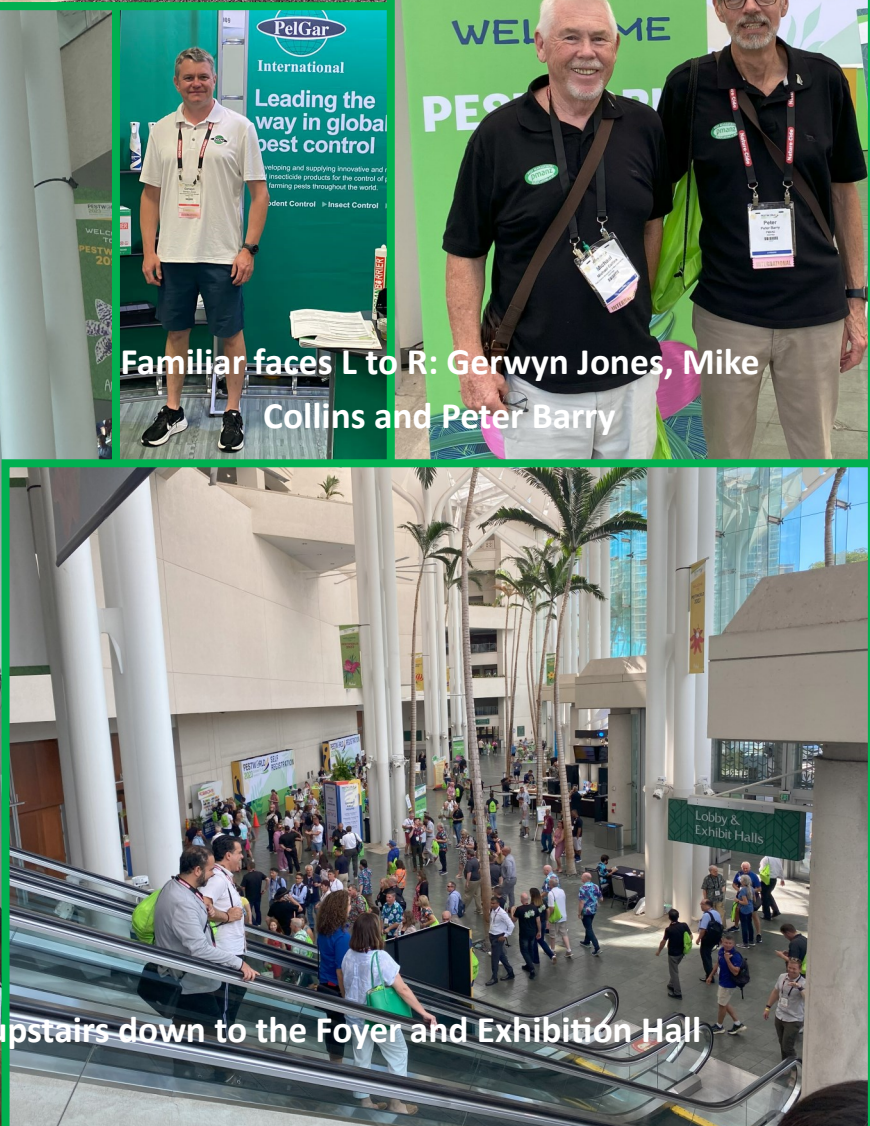
See more photos of PestWorld and Waikiki over the pages



Exhibition Hall



Escalators from the Convention rooms upstairs down to the Foyer and Exhibition Hall



Familiar faces L to R: Gerwyn Jones, Mike Collins and Peter Barry



Waikiki Beach





Understanding Filth Flies in Food Facilities: Biology, Habits, Prevention, and Control

By Paul Craddock

Four of the most common fly pests in food facilities are the relatively large house fly and the small vinegar, phorid, and moth (drain) flies. Following are overviews of each of these and what food processing facilities can do for prevention and control.

THE HOUSE FLY



Removal of breeding sites is a key component of a fly program.

Because the house fly lives in close association with people, it is one of the most commonly encountered pests around the globe, said PMANZ's Dr Paul Craddock. House flies represent a serious health threat in food processing facilities as they are capable of mechanically transmitting numerous foodborne pathogens that cause disease.

Prevention. House flies are strong fliers and can enter a clean facility through an open entry point

and with the help of negative air pressure from the building. Other areas that allow house flies to enter a facility can include weep holes, wall voids, and rubbish chutes with poor sealants.

Thus, house fly prevention should include:

- Installing effective window and door screens, opening doors only when necessary, installing air doors on frequently used entry points, and setting Insect Light Traps to trap flies that get through.
- Airflow is another key control measure. Ceiling fans, air curtains and heat pumps etc. circulating air discourage flies from entering and congregating in facilities.
- Inspecting incoming products that could transport fly eggs and larvae.
- Removing all organic materials in potential breeding sites.
- Regularly cleaning garbage cans; placing trash in sealed garbage bags; and locating garbage receptacles as far from building entrances as possible.

Control. "Removal of breeding sites is a key component of a fly program," Paul said. Larger flies like house flies are typically breeding outside and entering the building or structure. This means looking outside to critical areas that should be cleaned frequently to reduce food sources or breeding sites.

Article continues on next page

Additionally, he recommended indoor and outdoor applications of insecticides labelled for food processing facilities. This could include space spraying of indoor areas where flies rest (avoiding contact with exposed food and food handling surfaces) and outdoor applications in fly-resting areas.

Indoor maintenance also can be completed with spot or crack or crevice treatments, and exterior granular fly baits can provide control in bait stations or as a broadcast treatment.

Other building-related controls, which may not seem obvious, include reducing the structure's insect attractants, primarily that of lighting, for both the interior and exterior. Light timers and activation sensors can greatly reduce continuous errant-light emissions from a facility's interior lighting while reducing operational costs.

THE VINEGAR FLY



Technicians often must conduct lengthy inspections to find the source of a vinegar fly infestation.

"Vinegar flies are very common indoor pests that have the potential for disease transmission and can be a nuisance when hovering over food," Paul said. They are common wherever food is but are particularly attracted to ripened or fermenting fruits and vegetables. They are also often seen congregating around bar areas where there is spilled beer and other alcoholic beverages.

Prevention. "Vinegar flies breed in drains, garbage disposals, rubbish bins, and other like areas," Dr Craddock said, adding, "Preventing a vinegar fly

infestation is as simple as eliminating the source."

However, finding the source is not always as simple, as eggs are easily transported into facilities with food deliveries, and adults can enter through door and window screens. Breeding areas can also be hidden in cracks and crevices, behind kickboards and splashbacks around food prep or bar areas where wet sludge has accumulated. Technicians are often tasked with conducting lengthy inspections to find the source of the infestation.

Control. Once a vinegar fly infestation is established, control starts with locating any potential food source and removing it. A single piece of produce that may have fallen behind a shelf can be the source of an infestation, so thorough inspections of the facility are important, Paul explained.

UV Insect Light Traps (ILT's) can help with monitoring or control, and adult vinegar flies can be controlled with space sprays. However, it is essential to locate and eliminate breeding sites. This can be a challenge, but taking time to conduct thorough inspections and consistently communicate with facility personnel to discuss their role in vinegar fly prevention can result in long-lasting control.

Control also should include:

- Drain cleaning with a stiff brush and an antimicrobial foaming agent.
- Deep cleaning of decaying matter found on the underside of drain covers, caulk lines, backs of appliances (like ice machines and dishwashers), and dark corners.
- Sealing of cracks and crevices with sealant to eliminate areas where wet sludge accumulates.
- Space spraying in approved areas with an adulticide and treating landing zones with insecticides, taking care to never treat food-contact surfaces.

Article continues on next page

THE PHORID FLY



Phorid flies are small in size but can mechanically spread bacteria to food and food-contact surfaces from the outdoors. “A key identification feature is the adult fly can often be seen running around on surfaces, rather than flying, hence the common name “scuttle fly” Paul said. Frequently found around rubbish, drains, damp organic waste, and rotting produce, phorid flies also can bring pathogens into a facility after breeding in dead animals. “Because they feed in decaying debris, faeces, floor drains, and such, phorids are suspected of carrying Salmonella, E. coli, and similar pathogens to food and food-contact surfaces,” said Dr Craddock. “Their presence in food plants or conditions favourable to their activity is a serious find for food inspectors.”

Additionally, he said, the fly larvae go through a wandering phase and leave the food source to pupate in a safe/hidden place, so the first signs of activity can be the adults, the wandering larvae, or the pupal cases — in some unexpected places. Because of that, “outside the box” thinking can be most effective for controlling this pest in food plants and warehouses, he said.

Prevention. Dr Craddock provided the example of phorid fly pupae found inside the electrical plug of a portable scale in a plant’s packaging department. Even though the manufacturer produced low-moisture dog treats, equipment was wet cleaned weekly. When the equipment plug was dismantled, small deposits of airborne food particles (fines), water overspray from sanitation, and fly pupae were found inside. The plug was replaced with a new water-tight plug designed for use in wet processing areas, he said.

Control. Accurate identification is the first and most important step of any fly control program, Paul added. “If the fly is not accurately identified, the treatment process may not match the biology and behaviour.” Phorid fly control may involve inspecting wall spaces, repairing drain systems, and leaking pipes, and removing contaminated soil or organic material. Check for broken septic lines or cracked septic tanks, especially in older buildings. Look for possible breeding areas in any kind of wet organic material. Typically this is within a few metres of where flies are congregating.

“Cracks in plumbing, expansion joints, and windows are possible entrance points for phorid flies and should be repaired,” he said. As with all small-fly infestations in food processing facilities, cleaning and maintenance of drains, removal of excessive moisture, and applications of insecticides are important pillars of control.

Article continues after advert



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THE MOTH/DRAIN FLY



The most effective way to prevent moth fly infestations is to eliminate organic, rotting material that they breed in.

Moth flies, also commonly called drain flies, are considered to be likely mechanical vectors of bacterial pathogens, as they are covered in fine hairs and scales. For their development, moth flies rely on standing water that is ripe with organic matter, and they often are associated with high indoor humidity.

Because they originate in filthy conditions, moth flies can transmit bacteria and other microbes. Adults also can be a problem by falling into food or getting in people's eyes and mouths, and they commonly aggregate around windows, toilets, and other moist areas.

Prevention. To help prevent drain flies, keep indoor areas dry and free of excessive moisture. Clean wet areas often, paying special attention to toilets, water-holding tanks, drains, and sinks.

The most effective way to prevent moth fly infestations is to eliminate organic, rotting material that they breed in. Clean drainpipes, drain traps, and other plumbing components to eliminate the breeding sites often found in these areas. Enzyme cleaners designed for use around plumbing sites are ideal for breaking down these kinds of bacteria.

Moth fly are also a common symptom of a leaking drains somewhere in the facility, and this may be sub-floor with the flies breeding and then entering the building through gaps around pipework.

Control. Control of moth flies is similar to that of vinegar flies with removal of breeding sites as the first pillar of control. This may mean the use of inspection cameras to check sub-floor areas for leaking drain and pooling water. Also remember the drains might be clean, but there may be cracks around the drain hole housing in the floor where water is seeping and organic material accumulating. Landing areas in a food processing facility, such as the walls behind counters, can be treated with an approved adulticide, and using insecticides that are microencapsulated may provide a long residual, he said.

FUNGUS GNAT



Fungus gnats come in different sizes & colours and look like small mosquitoes. They have a hunched over appearance. Commonly these breed in moss, mould & wet soil in the base of pot plants or in damp garden areas.

They are mostly seen hovering around plants flying slowly and getting into people eyes and mouth. Because they often breed in plants they can be commonly found in dining or seating areas where amenity plants are placed for decoration.

Prevention. The best prevention for fungus gnat is again to eliminate breeding areas. Tell the staff to not overwater plants (let them dry out periodically). Remove mossy areas around the outside of facilities either by digging out the moss and/or covering the area with stones etc. Advise the customer to fix water leaks that create moss and slimy areas outside.

Control. Control of fungus gnat is similar to that of other flies with removal of breeding sites first. This may mean removing infested pot plants from the location putting them outside and letting them dry out. Soil in plants can be treated with insecticidal granules, however care must be taken to not damage the plant itself. Also the plants can be re-potted in clean sterilised potting mix to eliminate the flies breeding in them.

FINAL FLY ADVICE

“Fly control can take time, persistence, and attention to detail,” Dr Craddock said, “But communica-

tion is also important.” If client employees see a fly problem, they should report it as soon as possible, and honest communication from facility personnel about new infestation sightings, or even re-infestations, is imperative for a swift resolution.

Additionally, effective monitoring is essential to the success of an integrated pest management program in food processing. For many years, much has been written about pest monitoring and sampling with UV insect light traps (ILT’s) in structural environments. . However, pest control companies may not be maximizing the value of ILT’s, as the catch board results are often ignored after the pest is identified.

ILT’s can be moved around the facility to pinpoint the exact location of the infestation or entry point, and control measures can be deployed more effectively, he said.

Article continues on next page



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They can also report the early signs of a new infestation as close examination of the catch board can show the increase of particular pest fly species over time, thus indicating if further follow-up is required.

ILTs are also means of mechanical control, where they are typically installed:

1. At immediate entry points like loading docks where there is no direct exposure to open product, process, and related items.
2. Along an insect's most probable path from entry towards critical areas where easy contamination could occur.
3. Within production areas (but not over exposed food or food-contact areas) to act as both a last mechanical control device and a monitoring device.

"Should a ILT experience increased insect-catch activity, then facility personnel or responsible contractors should be made aware of this pest pressure to identi-

fy and eliminate this risk," Paul said. Familiarity to field identify the different common problem fly species on a glue board by a technician is a very useful skill to learn.

Post-treatment monitoring of flies in food processing facilities is also important, Paul said. Use ILT's to count the population and make sure it is declining. Control should be gained within several days if all resting, breeding, and feeding sites are treated. If it's not, he said, re-inspect to make sure all relevant areas have been cleaned and treated. "If necessary, expand inspection area to other nearby possible sources of infestation. Flies naturally move towards light, so flies will gravitate towards lighted areas out through gaps or towards windows. This means the breeding source could be hidden in walls, sub-floor, behind equipment, in pot plants, bins etc a short distance from where they are congregating". It is important to talk with employees of the food processing facility to make sure all sanitation and exclusion recommendations are being followed," Dr Craddock said.



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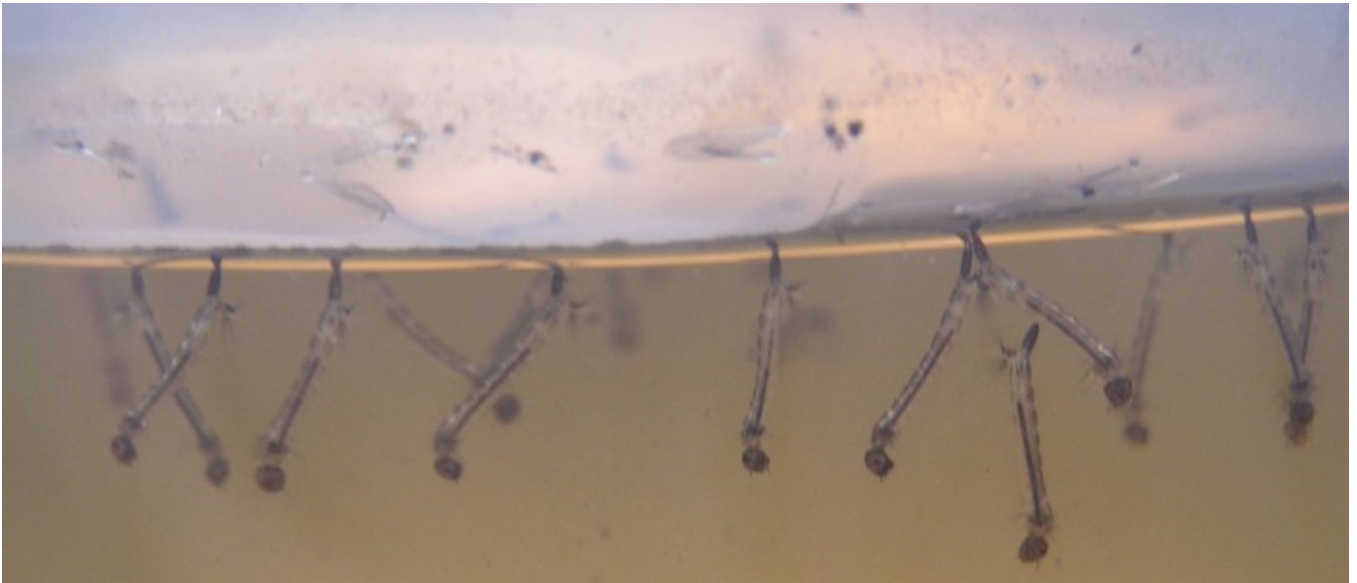


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Sometimes, Mosquito Control Efforts Give Larvae More Room to Grow



In a container of water crowded with mosquito larvae, killing only some of them can sometimes result in more adult mosquitoes emerging than would have otherwise. New research on three container-breeding mosquito species details the complex dynamics between changes in larval density and mosquito survival and offers insight into the optimal timing for mosquito-control treatments. (Photo by Steven A. Juliano, Ph.D.)

Among mosquitoes in the genus *Aedes*, species whose larvae develop in small water-holding vessels (referred to as “container *Aedes*”) are some of the most important vectors of human viral diseases, including dengue, yellow fever, Zika, chikungunya, and viral encephalitis. Their preferred habitats for oviposition (i.e., laying eggs) and larval development range from natural rot holes in trees to human-made containers such as discarded tires or plastic containers, cemetery vases, and other containers that collect water. These sorts of containers are often common near houses and workplaces, resulting in exposure of people to biting *Aedes* populations.

Source **Entomology Today**— Read Original [HERE](#)



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News Worth Sharing

Australian town Karumba, Queensland plagued by 1000 drowned rats a day



There's an 'out of control' number of rats at Karumba.

Each day at least 1000 dead rats are removed from boat ramps at a town in Far North Queensland.

The “big hairy fellas” began arriving at the usually picturesque fishing community of Karumba this week.

Locals lock up what they can to keep them at bay indoors. Outside, car bonnets are up so rats are not tempted to climb inside and gnaw the wiring.

Boats aren't safe either, with rodents crawling up anchor chains and “making themselves at home”.

It's hard to imagine the rat plague getting any worse.

But Carpentaria Shire Mayor Jack Bawden is bracing himself.

“We are only just starting to cop it,”.

Read the full article [HERE](#)



News Worth Sharing

The Roundup Class Action in Australia: What You Need to Know

A class action lawsuit has been filed in the Federal Court of Australia against Monsanto and its Australian division Huntsman Chemical Company, the manufacturers of Roundup, one of the world's most popular weedkillers.

The lawsuit alleges that exposure to glyphosate, the key ingredient in Roundup, caused non-Hodgkin lymphoma, a type of cancer that affects the lymphatic system, in more than 800 Australians.

The lead applicant in the case is a 40-year-old man from Queensland who worked for his family's vegetation management business for 20 years, spraying weeds on the side of highways and other properties.

He was diagnosed with non-Hodgkin lymphoma in 2018 and underwent chemotherapy and radiation treatment. He went into remission in 2019, but his cancer returned about two months ago.

The class action is expected to last for nine weeks and will hear from expert witnesses about whether glyphosate is carcinogenic to humans and can cause non-Hodgkin lymphoma.

If that is proven, the court will then decide whether Monsanto and Huntsman were negligent regarding the risks posed by their products.

Read the full article from The Guardian [HERE](#)





NEW ZEALAND NEWS



Rats, stoats and weasels have been eliminated from the Miramar Peninsula



Predator Free Wellington and the Miramar Peninsula community are celebrating the elimination of rats, stoats and weasels from the Miramar Peninsula.

James Willcocks, Project Director for Predator Free Wellington, describes this as a massive milestone that has been hard won.

“It takes a lot of persistence, resilience, and dedication to reach zero rats in an urban environment and we thank everyone who has stuck with us on this journey,” said James.

“The project has relied on the support of the 20,000 residents on the peninsula and involved almost every third household, business, school and kindergarten, hundreds of volunteers, technical experts, and our foundation partners Greater Wellington Regional Council, Wellington City Council, Predator Free 2050 Ltd, NEXT Foundation

and Taranaki Whānui ki Te Upoko o Te Ika.

Miramar resident Dan Henry has been leading the volunteer trapping efforts on the peninsula, and said he is immensely proud to be involved in the project.

“While getting the last rats has been a tough task, it’s incredible how quickly it has transformed our local environment. We’ve already seen a 71% increase in native bird detections, including a 500% increase in pīwakawaka and a 340% increase in riroriro. Mokomoko (lizards) and wētā populations have also increased significantly,” said Dan.

Greater Wellington chair Daran Ponter said the technical skills among the field team and Miramar volunteers are paving the way for urban predator free projects in Aotearoa.

Article continues on next page



“When the team started on the peninsula, the method was based on standard pest management techniques for New Zealand, learning from a mixture of pest suppression on the mainland and pest eradication on islands.”

“That method worked for Norway Rats, stoats and weasels, but not ship rats. We had to go back to the drawing board many times, and continue to collaborate and innovate in a way that hasn’t been done before in this kind of environment,” said Cr Ponter.

Chief Executive Predator Free 2050 Ltd, Rob Forlong, said the knowledge gained from this first phase of the Wellington project is invaluable.

“Not only do we now have a better understanding of the technology and resources needed to reach our predator free 2050 goal in urban environments, but we’ve also learnt how to make significant cost efficiencies, with cost reductions of up to 75% per hectare achieved by Predator Free Wellington.”

“We now have a proven method that works, but we are not stopping anytime soon. Predator Free Wellington have already moved into their phase 2 project area which runs across from Island Bay right into the CBD,” said Rob.

Wellington City Mayor Tory Whanau congratulated every trapper and every resident who has helped Predator Free Wellington reach this milestone.

“It’s been wonderful to see the way this project has galvanised Wellington with the shared purpose of making Pōneke the world’s first predator-free capital city. It’s not only transformational for Wellington, but the whole of Aotearoa.”

Article continues on after the advert



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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)

PMANZ Would like to take the opportunity of wishing all its members and friends a very Merry Christmas, Festive New Year and





ADDITIONAL FACTS AND FIGURES

Biosecurity

Predator Free Wellington has eliminated rats, stoats and weasels from the Miramar Peninsula. A biosecurity network is now in place.

It is expected that we will continue to detect incursions of ship rats on the peninsula from time to time, but we have full confidence in our response network of 450 monitoring cameras, rat detector dog team, volunteers and local residents.

We have been testing the biosecurity system for the past 12 months with Norway rats and weasels – and it works! Individual rats are not an issue, what's important is that they are removed quickly before any chance of breeding. As we progress further into our phase 2 project, this will take the pressure off the peninsula.

The challenges of biosecurity is what makes

this project special. We have moved beyond the fences and offshore islands, and are paving the way to living alongside these precious taonga by centering our project in a city where 212,000 people live, work and play, every day.

About Predator Free Wellington

Predator Free Wellington is a charitable organisation supported by Wellington City Council, Greater Wellington Regional Council, NEXT Foundation, Predator Free 2050 Ltd and Taranaki Whānui ki Te Upoko o Te Ika.

- Our project area encompasses 30,000 ha and an estimated 70,000 households. It stretches around from Miramar Peninsula, across to the south-west corner of Māhara and up to a boundary that follows the SH1 motorway through to the border with Porirua City.

Article continues on next page

- **Miramar (phase 1):** The first phase involved eliminating rats, weasels and stoats from Miramar Peninsula. This was chosen as our initial area of focus because it's been possum free since 2006 and as a peninsula, is more easily defensible from predator re-invasion with the Wellington Airport acting as a natural barrier.
- **Island Bay to CBD (phase 2):** The second phase includes sections of the Wellington town belt, CBD and suburbia. We are already working in phase 2 in Rongotai, Lyall Bay and Hataitai.
- **Phase 3, 4 & 5:** Incorporates parts of the city and outer suburbs. In these latter phases we will work closely with our friends at the Capital Kiwi project as well as coordinating with Porirua City control efforts as we near the upper border.



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Difficult balancing act': Why NZ's cats pose a conservation conundrum



New Zealanders have the highest rate of cat ownership in the world - but unfortunately our feline friends are a major contributor to native biodiversity decline. Photo / Thinkstock

It's a conservation conundrum: how do we protect our threatened native species from roaming felines in a country with [the world's highest rate of cat ownership](#)?

As officials mull whether [feral cats](#) should be added to the hit list of [our Predator Free 2050 mission](#), a new review has laid out the biggest knowledge gaps still facing efforts to manage the animal.

Study co-author, Manaaki Whenua-Landcare Research wildlife ecologist Dr Al Glen, said how to tackle the ecological impacts wrought by an animal widely loved and valued in New Zealand made for a "difficult balancing act".

"Our wildlife evolved without mammal predators, which means they're far more vulnerable than wildlife in most other parts of the world."

Feral cats, particularly, have long proven themselves ferocious predators - killing native birds, bats, lizards, wētā and other insects – while spreading toxoplasmosis to other animals and humans.

But this designated pest, thought to number 2.5 million in New Zealand, was just part of the problem.

Aside from the estimated 200,000 stray cats wandering our towns and cities, nearly half of Kiwi households own at least one domestic cat – and 20 per cent own two or more.

Glen and colleagues decided to look at all three of those types together and pinpoint what further research was needed around each.

One key issue was that, as with stoats, New Zealand still didn't have cost-effective ways of monitoring feral cats, or how far juveniles could disperse.

The study explored the effectiveness of different techniques such as camera trapping, footprint counts and wildlife detection dogs, finding various pros and cons.

Article continues on next page



Aside from the estimated 200,000 stray cats like these wandering our towns and cities, nearly half of Kiwi households own at least one domestic cat – and 20 per cent own two or more. Photo / Zabusik Aleksey

It also discussed the need to develop more effective lures and kill traps for feral cats and, importantly, to develop procedures that could distinguish owned cats from unowned ones.

That might require new legislation requiring owned cats to be registered and microchipped in the same way dogs are, the review found, but public acceptance would be needed first.

Glen saw social licence as being fundamental to the wider issue – and much research would be needed to gauge views among different groups.

“The risk is, if the public are not onboard and we don’t have public support for what we’re doing, then there might be all sorts of problems, ranging from political opposition, through to people deliberately sabotaging management equipment,” he said.

“It’s really important to give a clear message that this is about managing the harmful impact of cats – which does not equate to getting rid of all cats.”

With the issue having been in the spotlight since the Morgan Foundation launched its controversial Cats to Go campaign a decade ago, Glen felt there was now more awareness among Kiwis about responsible cat ownership.

“It’s now more common to hear people say they’re keeping their cats indoors, or in an enclosure in the gardens, so they’re not out hunting wildlife ... so I think we

are moving in the right direction.”

Glen stressed the review, [just published in the New Zealand Journal of Ecology](#), wasn’t recommending policy, but summarising knowns and unknowns.

“We’d be jumping ahead to say this is how we need to manage them.”

The paper comes as the Department of Conservation is planning to review its Predator Free 2050 strategy next year, with a goal of having a revised one in place by 2025.

DoC’s senior manager for the programme, Brent Beaven, said that work would address whether feral cats or other introduced predators should be included in the strategy, which currently targeted rats, possums and stoats.

“Consulting with the New Zealand public about any changes to the strategy will be an important part of the review process.”

National leader Christopher Luxon has already signalled his support for feral cats joining the kill list, as has the South Island’s Southern Lakes Sanctuary conservation group.

The Predator Free New Zealand Trust has meanwhile called for a “National Cat Act” involving compulsory de-sexing and microchipping.

Source: NZ Herald, Jamie Morton

Read Original [HERE](#)

Proposal to Modify the Regulatory Controls Covering the Use of Brodifacoum Based Vertebrate Toxic Agent (VTA) Products

The proposed changes that may affect us are as follows:

- a. Recognition of persons
- c. Record keeping
- e. Controls on use
- g. Notifications, Signage & Boundaries
- h. Minimising exposure to Non-Target Animals
- i. Persons responsible for use



Ministry for Primary Industries
Manatū Ahu Matua

Recognition of Persons

The most significant changes proposed is for individuals or organisations to be accredited as Recognised Persons (s) by the Ministry for Primary Industries.

“Users, other than those authorised by MPI, may not purchase, or have in their possession or store on their property any quantity greater than 300 g of any brodifacoum containing VTA.”

There are two pathways: 1 for individuals and 2 for Organisations, Associations or Institutions.

Pathway 1: Individuals

1. The process of becoming a Recognised Person will require application to the Ministry for Primary Industries with proof of, or permission to, obtain documents outlining the competency, specified convictions, character and reputation of the applicant. The Recognised Person status will be valid for 5 years.

2. This will require completion or provision of all of the following documents:

- a. A Police Vetting Form application, or equivalent e.g. current and valid Firearms licence;

b. The supply of two referees who will support the application.

c. Proof that the applicant has undergone a suitable educational programme pertaining to the administration and use of brodifacoum containing VTA products.

Pathway 2: Organisations, Associations, or Institutions

1. Where an organisation, association, or institution have an in-house training programme for the use of brodifacoum containing VTA and have a process to ascertain that its members / employees are fit and proper persons, then the organisation can be recognised as having “Ministry for Primary Industries Recognised Person(s) status” upon submission of an Operating Plan. The cost for this is \$155.25 (GST inc.) plus an hourly fee and it is valid for five years.

2. Operating plan guidance and template will be made available prior to the new conditions taking effect.

ED: We believe PMANZ can provide this training and will be discussed at our next meeting on 5th December .

Condition #	Description	Existing Condition Text	Proposed Condition Text
New	Adverse Event re- porting		The user must notify the registrant immediately upon becoming aware of an adverse event that seems to have seriously jeopardised the health and welfare of non-target pets, livestock or food producing animals through exposure to the trade name product
New	Use		For each application of quantities of 300 g or less by domestic, non- commercial and commercial users, Bait must only be used in a bait station. Bait stations must be monitored weekly to ensure a continuous supply of bait. All uneaten baits must be collected and removed from the area when baiting operation has ceased.
New	Use		For each application of quantities greater than 300 g, Bait must only be used in bait stations unless otherwise specified in a Ministry for Primary Industries approved operating plan for that product. Bait stations must be monitored regularly during the baiting programme, with records kept for each station detailing: the amount of bait added or removed; the method of disposal of surplus bait. All uneaten baits must be collected and removed from the area when the baiting programme has ceased. All records on the use of the product must be kept for a minimum of five years and made available to Ministry for Primary Industries upon request.
New	Notifications		For each application of quantities greater than 300 g To use the product, a person approved by the Ministry for Primary Industries must ensure that the landowner or business owner has sighted and signed a copy of the approved label for the Trade Name Product prior to its application. A copy of the consent must be kept for a minimum of five years and made available to the Ministry for Primary Industries upon request.

Condition #	Description	Existing Condition Text	Proposed Condition Text
57 revised	Signage	<p>If the product is applied where public may have access to the treatment area, signs must be posted in prominent places around the perimeter of the treated area. The signs must remain in place until monitoring confirms that the product is no longer present. Signs must state:</p> <p>that it is an offence for any person to remove the sign(s) prior to clearance of the area;</p> <p>that it is an offence for any person (other than the applicator) to remove/move baits from the area;</p> <p>a warning of potential harm to dogs</p> <p>a warning that feral animals may contain residues of the toxin and should not be taken for food.</p>	<p>For the application of quantities greater than 300 g, if the public has unrestricted access to the treatment area, then</p> <ol style="list-style-type: none"> 1. Signs must be posted at every point of entry to the place where the trade name product is to be applied, and / or 2. Each bait station shall display signage equivalent to that required for (1) above, and 3. Signage must remain legible for the length of time that the sign is displayed. <p>In addition to the requirements detailed in other legislation, signs must state the following, when applicable,</p> <ol style="list-style-type: none"> 1. That it is an offence for any person other than the user to remove signage. 2. That it is an offence for any person other than the user to remove the trade name product from the area, 3. A warning of potential harm pets, livestock and food producing animals, and <p>A warning of potential harm that feral animals may contain residues of the toxin and should not be taken for food.</p>
New	Boundaries		<p>For each application of quantities greater than 300 g,</p> <p>All operational boundaries, access points, bait stations and signage must be mapped (preferably by GPS). This information shall be recorded by the user. These records must be kept for a minimum of five years after the baiting programme has ceased.</p>
New	Carcasses		<p>Carcasses:</p> <p>Access to the Trade Name Product by pets, livestock and food producing animals must be prevented.</p> <p>Poisoned carcasses must be collected and buried or burned (where practical or necessary) to prevent access by pets, livestock and food producing animals.</p>
New	Non-Target Animals		<p>Exposure of non-target animals: The user must take all practicable measures to minimise access to baits by pets, livestock, and food producing animals.</p>
New	Responsibility		<p>The security, identity and application of the product must be under the control of the user.</p> <p>The user will be responsible for the trade name product from the time of receipt until the time that the product is assessed as being non-toxic or has been removed from the baited area.</p>



PMANZ CONFERENCE 2024

"EMERGING CHALLENGES IN PEST MANAGEMENT"

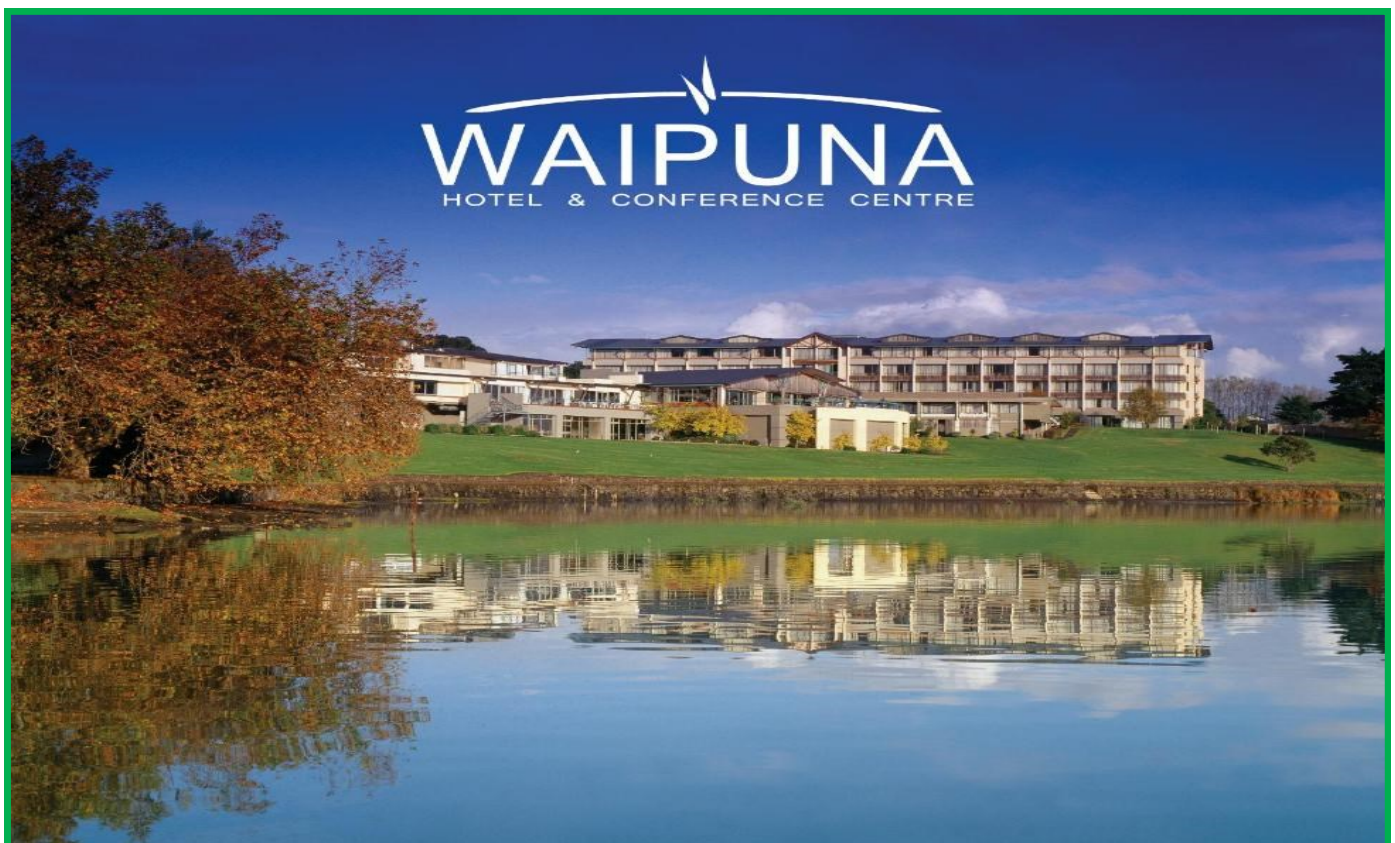
This conference will focus on the evolving nature of pest management and the new challenges it presents. Discussions will cover the need for adaptive pest control strategies.

Thursday 29th and Friday 30th August 2024.

Who should attend

Pest Managers, Technicians, Supervisors and Managers and Product Suppliers

The Pest Management Association of New Zealand are bringing together leading pest industry experts to share ideas on improving our future understanding of science-based pest management strategies, what insecticides work best and how to use them, ensuring you are safe, and looking at the role of technology in pest management. Listen to and talk with the experts in a relaxed atmosphere to get answers to your pressing questions.



A walk down Memory Lane

Extracted from PMANZ Newsletter of
December 2011

Exotic mosquitoes intercepted at Ports of Auckland

Local residents close to the ports of Auckland and Tauranga are being asked to keep a look out after two unwanted species of mosquito were found on a visiting cargo ship.

Public Health Service staff in both cities are responding to the unexpected finding of exotic mosquitoes at the Auckland Port on Tuesday on a ship that had docked the day before in Tauranga.

Mosquito larvae (wigglers), pupae (tumblers) and other signs of mosquitoes were found following a routine check by MAF staff in Auckland on Tuesday. The vessel had come from Vanuatu.

The two species found are *Aedes albopictus* (Asian Tiger Mosquito) and *Culex quinquefasciatus* (Southern House Mosquito). There is particular concern about the first of these, as the Asian Tiger Mosquito is not established in New Zealand, and is able to spread a range of diseases.

All mosquitoes detected on the vessel have been treated and killed.



Checks of the vicinity have been made and traps have been set locally in both ports.

Ministry of Health Manager of Border and Environmental Health Sally Gilbert says, "Border health protection officers are maintaining close surveillance around the areas and are conducting further searches for mosquitoes."

"It is essential that the site is closely monitored for the next few weeks."

In addition, anyone living or working in the vicinity of the Auckland or Tauranga wharves who notices any mosquito activity such as insect biting or 'wigglers in pooled water' should contact our hot line (0800 MOZZIE or 0800 669 943)

Exotic mosquitoes of public health significance have been intercepted on average around nine times a year in the past five years.

Continuing Professional Development

In our last newsletter we informed PMANZ members of a project to establish a Continuing Professional Development training system for Members. We are pleased to announce the first training modules will go live on the PMANZ website on 4th December!

Initially there are two web based training modules on Ant biology and control, with more to come as we add to the library.

Completing these modules will count towards achieving and maintaining Master Qualified Technician membership status (from April 2024).



To complete the modules members will first need to log in to the PMANZ website using your normal credentials, and then go to: <https://pmanz.nz/cpdmodules>

At this link you will see two training modules:

1. Click to open into a new window to be viewed like a slide show.
2. Once you have finished viewing the slideshow a link will take you to the CPD Quiz Page.
3. Once at the Quiz Page you will need to open the appropriate quiz and answer a few multi-choice questions based on what you just learned in the module.
4. Successful completion of the quiz will be recorded on your PMANZ user account.
5. There is also a general feedback quiz that you can do to give us an idea of what you think of the training.

NOTE: The modules and quizzes can be completed on both desk-top, mobile and tablet devices.

Aside from supporting you with professional development, Paul is able to provide technical support to members on a range of issues.

Paul can be contacted on paul@pmanz.nz



New Website System Updates

The main news on our system developments this month has been the “go live” on the interactive Finder Facility. Along with this, the old-school “Registered Technician by Region” page has now gone.

Just as a reminder, the Finder Facility allows prospective customers to search by pest type, locality and residential/commercial.

BUT....your business will NOT show to customers unless YOU populate your organisation’s account with the necessary information on pest types that you service and areas that you cover. This is all done in the “Finder results” section at the foot of the Edit tab on your organisation’s page. where you will need to select services for each area that your business services.

A lot of members have taken advantage of this facility and their business now shows in results for customers, BUT there are still quite a few who have yet to take the plunge.

Members who have done the work, tell us that this is really only a “five-minute job”, but, if in any doubt, call **David on 0800 476 269** for any help you need.

The “Finder Facility” allows prospective customers to search by pest type, locality and residential/commercial. The search screen they will use looks like this:

Find A Professional Pest Manager

To find properly qualified pest management in your area, just:

- click on “*I need help with*” to list pests types
- then click for your locality
- and, residential or commercial?
- Finally, click on “*Find services in my region*” to see a list of the businesses in your area who can assist

Click on the suggested results and you’ll see all the details you need to help get your pest problem resolved.

If you still have queries, please feel free to call PMANZ on: 0800 476 269

Every PMANZ member has been set up as a user on our new system. If you go to the homepage: <https://pmanz.nz/> you will find a button towards the right-hand side to login. Using your email address, you can create a password exclusive to yourself – the system will enable this through a “lost password” process.

Once you have done this, you will have full access to the members’ area and ALSO...

... you will be able to populate your own organisation’s service offering by pest type and locality and to feature when customers come looking!

Don’t forget – for any help you need.

Call David on **0800 476 269** or email him on info@pmanz.nz



A Year of Achievements and Exciting Plans Ahead

As we approach the end of the year, it is with great joy and enthusiasm that I share some exciting news and reflect on the remarkable journey we've had together. Firstly, I am honoured to announce that I have been appointed as one of the New Zealand representatives for Women in Pest Management, alongside Aimee McBean. This decision is fuelled by my unwavering passion for supporting and empowering women in our industry.

In my new role, I will be overseeing all sponsorship activities in NZ, which includes the prestigious 2024 WIPM NZ Excellence Award. I am thrilled to share our vision for the upcoming Women in Pest Management Networking Breakfast. This event is not merely a celebration of the remarkable achievements of women in our industry, but a crucial step towards fostering an inclusive environment where everyone, regardless of gender, can flourish. The success of our Networking Breakfast hinges on the support of industry sponsors. These partnerships are vital in enabling us to create a platform that

not only highlights the accomplishments of women but also propels our industry toward greater inclusivity and diversity. Our goal is not only to gather together to celebrate the achievements of women in pest management but also to actively contribute to shaping an industry where talent knows no gender boundaries.

Collaborating closely with Nicky Turner and the rest of the committee members, I am committed to achieving our association's goals. Together, we have witnessed our membership flourish to over 340 supporters, and we are determined to continue this upward trajectory.

Community outreach remains a core focus for us. We are passionate about promoting mental health and empowering women to thrive in all aspects of their lives. We firmly believe that, as a united community, we can make a real difference.

Article continues on next page

A big thank you to each member of our committee who generously volunteers their time to WIPM. Their dedication and commitment are truly inspiring. I encourage all PMANZ members, male and female to join our Facebook group <https://www.facebook.com/groups/nzwipm>, and stay connected with us.

If you are interested in being involved with the NZ WIPM committee, please email us at info@wipm.au or contact me directly. We would love to hear from you.

Our digital Christmas edition magazine is gearing up to dazzle your screens in December, and it's all about celebrating the incredible female talent in our industry from Australia, New Zealand, Papua New Guinea, Fiji and the United States.

Wishing you a season filled with joy, peace, and the warmth of shared camaraderie. As we reflect on the achievements of the Women In Pest Management Association this year, may the spirit of Christmas inspire us to continue working together to overcome challenges and create a brighter future for all.

**Merry Christmas,
Nikki De Renzy
New Zealand Representative,
Women in Pest Management (WIPM)**



Women in Pest Management Soar to New Heights in Hawaii!



We're thrilled to share an exciting update from the recent PestWorld event in Hawaii, where the Women In Pest Management (WIPM) president, Nicky Turner, along with Jodie Turner from Maximum Pest Control, showcased the remarkable presence of women in our industry. The duo, representing Australia and New Zealand, made their mark at the Professional Women In Pest Management (PWIPM) networking breakfast on October 19th, sponsored by FieldRoutes.



Jodie Turner and Nicky Turner



Mirillian Missiti and Nicky Turner

The event was a resounding success, drawing over 100 attendees, including NPMA president Mirillian Missiti and PWIPM and Bell Laboratories Vice Chair Sheila Haddad. It was a fantastic opportunity for women in pest management from around the globe to come together, share experiences, and forge valuable connections. Importantly, the invitation was extended to male pest professionals, fostering an inclusive environment.



Highlighting the dedication to empowering women in pest management, the 2023 Deni Naumann Women in Pest Management Empowerment Grant was awarded to Caroline Kohnert from Plunkett's Pest Control and Julie Johnson from Terminix. This prestigious grant, providing US \$1,000 for educational and professional development, also included a trip to PestWorld.

The Women in Pest Management initiative is making waves globally, with over fifty chapters of PWIPM worldwide. We, at WIPM, are exceptionally proud to be actively involved in this influential association. The PWIPM Council's commitment extends beyond professional development, as they organise a [Steps of Hope charity 5K run](#) each year at PestWorld.

The run, initiated four years ago, supports victims of human trafficking and domestic violence. Encouraging local engagement, the council challenges every PWIPM chapter to host their own 5K run, benefiting a charity of their choice.

Recent success stories include the Connecticut chapter's 5K run, where over seventy walkers raised an impressive \$3,500. It's heartening to witness the positive impact the PWIPM chapters can have when coming together for a cause.

Nicky Turner has been diligently working and actively participating in local quarterly meetings with other PWIPM chapters worldwide. The goal is to bring a similar structure for WIPM right here in New Zealand.

The anticipation is palpable, and all we can say is:
Watch This Space!



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](#)

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take you to the IRD Tax
Toolbox

PMANZ website Statistics

For the two months to late November 2023, the PMANZ website received 1628 visitors that viewed 3277 pages - that is an average of 2 pages per person. The top page views are listed below. This gives us a great indication of what pest activity is of current concern to the public.

Home	210
Find a Professional (old page)	63
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Latest newsletter	36
Wasps	35
Code of practice for the food industry	35
About us	28
Join us	27
Urban Pest Management Qualifications	26
Alphabetical list of registered technicians	22
Mice	18
Rats	15
Bed Bugs	14
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more than a membership
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Understanding the difference between Pyrethrins and Pyrethroids

This discussion follows on from the October article by Jeff Einam of ENVU about spraying, and explains the difference between Pyrethrins and Pyrethroids - Ed

The main difference lies in their origin and composition—pyrethrins are natural compounds derived from chrysanthemum flowers, while pyrethroids are synthetic chemicals designed to replicate the insecticidal properties of pyrethrins with increased stability and persistence.

Pyrethrins are natural insecticides that are extracted from the flowers of chrysanthemum plants. They have been used for centuries as a method of pest control. Pyrethrins work by targeting the nervous systems of insects, causing paralysis and ultimately leading to their death. These compounds break down quickly in the environment, making them a more environmentally friendly option compared to some synthetic alternatives.

Pyrethroids, on the other hand, are synthetic chemicals designed to mimic the insecticidal properties of pyrethrins. While they are based on the natural compounds found in chrysanthemum flowers, pyrethroids are created through chemical synthesis for greater stability and longer-lasting effects. Pyrethroids are widely used in various insecticides and pest control products. They are known for their effectiveness against a broad range

of insects and their residual activity, meaning they can provide longer-lasting protection.

There's a whole array of py-words in the world: pyrethrum, pyrethrins, permethrin, pyrethroids – so let's break it all down:

- Pyrethrum and pyrethrins are insecticides extracted from specific species of flowers within the chrysanthemum family.
- Pyrethrins are the six active molecules—or esters—that serve as the lethal component in the extract.
- Pyrethrum is the complete extract from the flowers, while pyrethrins are the refined six esters.
- Pyrethroids are synthetic compounds crafted to imitate the effects of the pyrethrin esters.
- Pyrethroids feature fewer chemical variants, typically consisting of one synthetic molecule as opposed to the six esters in pyrethrum.
- Pyrethrins exhibit a broad spectrum, eliminating a diverse range of insects, while pyrethroids usually boast longer residual effects and increased stability during storage.

Article continues on next page



Lets explain in more detail:

Pyrethrum and Pyrethrins:

- **Pyrethrum:** It's the natural insecticide extracted from specific species of chrysanthemum flowers. When we refer to pyrethrum, we're talking about the complete extract from these flowers.
- **Pyrethrins:** Within pyrethrum, there are six active molecules known as esters, and these are the key players in acting as the killing agent in the extract. They target the nervous systems of insects, leading to paralysis and ultimately causing their demise.

Pyrethroids:

- **Definition:** Pyrethroids are synthetic compounds designed to replicate the insecticidal properties of pyrethrins.
- **Composition:** Unlike pyrethrum, which contains a mixture of six esters, pyrethroids are crafted synthetically and often consist of just one synthetic molecule.
- **Purpose:** They are developed to mimic the effects of pyrethrin esters but with some advantages like increased stability and longer-lasting effects.

Comparison:

- **Chemical Variants:** Pyrethroids have fewer chemical variants compared to pyrethrins. Pyrethrins have six naturally occurring esters, while pyrethroids typically feature one synthetic molecule.
- **Spectrum of Activity:** Pyrethrins are broad-spectrum insecticides, effective against a wide variety of insects. Pyrethroids, while still effective, tend to have a more targeted approach.
- **Residual Effects and Stability:** Pyrethrins may have a broader immediate impact, while pyrethroids often provide longer residual effects and are more stable during storage.

In essence, pyrethrum and pyrethrins are natural, plant-derived insecticides with a broad spectrum of activity, while pyrethroids are synthetic counterparts designed for enhanced stability and longer-lasting effects, with a more focused composition.

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The composition of pyrethrum can vary based on factors such as the species of chrysanthemum flowers from which it is extracted, growing conditions, and harvesting methods. Different chrysanthemum varieties contain varying levels of the active compounds (pyrethrins) that give pyrethrum its insecticidal properties.

For example, *Tanacetum cinerariifolium* is a species of chrysanthemum commonly used for pyrethrum extraction, but even within this species, there can be differences in the concentration of pyrethrins. The timing of the harvest can also influence the composition, as the concentration of pyrethrins may vary at different stages of the plant's growth.

Additionally, the processing methods used to extract pyrethrum from the flowers can impact its purity and potency. The refining process separates the pyrethrins from other components of the plant extract, resulting in a more concentrated and standardized insecticidal product.

In summary, while pyrethrum is derived from chrysanthemum flowers, the specific variety of chrysanthemum, growing conditions, harvest timing, and processing methods can all contribute to variations in the composition and potency of the extracted pyrethrum.



Tanacetum cinerariifolium - Köhler-s Medizinal-Pflanzen-269.jpg - Wikipedia Public Domain

Let's think of pyrethrum like different batches of apple juice.

1. **Variety of Apples:** Just like there are different types of apples (Granny Smith, Red Delicious, etc.), there are different species of chrysanthemum flowers used for pyrethrum. Each type of chrysanthemum may contribute a slightly different mix of insecticidal compounds.
2. **Growing Conditions:** Imagine one batch of apple juice comes from apples grown in sunny orchards with perfect soil, while another comes from apples grown in less optimal conditions. The growing environment can influence the potency of the juice, similar to how the growing conditions of chrysanthemum flowers can affect the potency of pyrethrum.
3. **Harvest Timing:** Just like picking apples at different times affects their sweetness, harvesting chrysanthemum flowers at different stages can influence the concentration of insecticidal compounds like pyrethrins.
4. **Processing Methods:** Think of refining pyrethrum like filtering apple juice to remove pulp and other impurities. The processing methods used to extract pyrethrum from chrysanthemum flowers can impact its purity and effectiveness.

So, in the same way that not all batches of apple juice taste the same due to factors like apple variety, growing conditions, harvest timing, and processing methods, not all pyrethrum is identical because of differences in chrysanthemum species, growing conditions, harvest timing, and extraction processes.

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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. Read More [HERE](#)

Toxicity

Pyrethrins are generally considered to be low in toxicity to humans and are often used in insecticides for this reason. However, like any chemical substance, they can cause adverse effects if not used properly.

Exposure to pyrethrins can lead to skin irritation, eye irritation, or respiratory irritation for some individuals. In rare cases, people with sensitivity or allergies may experience more severe reactions. It's important to follow safety guidelines and use protective measures when handling products containing pyrethrins, such as wearing gloves and avoiding direct contact with the skin and eyes.

Inhaling large amounts of pyrethrins, such as through excessive use of aerosol insecticides in a confined space, may cause respiratory symptoms. Additionally, swallowing significant quantities of pyrethrins can lead to nausea, vomiting, and other gastrointestinal symptoms.

It's crucial to read and follow the instructions on product labels when using insecticides containing pyrethrins, and if there are any concerns or adverse reactions, seeking medical advice is recommended. Overall, while pyrethrins are considered relatively safe when used as directed, precautions should be taken to minimize unnecessary exposure.

Yes, pyrethrins are effective insecticides that are commonly used to control a wide range of domestic pests. They have a broad spectrum of activity, meaning they can be effective against various types of insects, including mosquitoes, flies, fleas, ants, and more.

Pyrethrins work by targeting the nervous systems of insects, causing paralysis and eventual death. They are often used in household insecticide products, such as sprays, foggers, and pet shampoos, to control and eliminate pests. Due to their natural origin (derived from chrysanthemum flowers) and relatively low toxicity to humans and pets when used as directed, pyrethrins are a popular choice for residential pest control.

Cats can be more sensitive to pyrethrins compared to some other animals. Pyrethrins, while generally considered safe for use around humans, can be toxic to cats because cats lack certain enzymes in their liver that efficiently break down and eliminate these compounds. As a result, pyrethrins can build up to toxic levels in a cat's system.

It's important to follow the instructions on product labels and use pyrethrin-based insecticides in accordance with recommended guidelines to ensure effective and safe pest control.

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If you're using insecticides or other products containing pyrethrins in your home, it's crucial to follow the product's instructions carefully, especially regarding pet safety. Here are some precautions to consider:

1. **Keep Cats Away During Application:** Keep cats away from the treated area while you're applying the insecticide, and ensure that the area is well-ventilated.
2. **Read Labels:** Read product labels thoroughly to check for any specific warnings or precautions related to pets, and choose products labelled as safe for use around cats.
3. **Consult a Veterinarian:** If you have concerns or if the cat shows any signs of illness after potential exposure to pyrethrins (such as excessive drooling, tremors, or difficulty breathing), seek immediate veterinary attention.

Some insecticides formulated with pyrethroids (synthetic versions of pyrethrins) can also pose risks to cats. It's always a good idea to consult with your veterinarian before using any insecticides in a household with cats to ensure the safety of your feline friends.

Read more about cat poisoning [HERE](#)

Pyrethroid formulations include aerosol sprays, smoke coils, electric mats, oil formulations, emulsifiable concentrates and wettable and dustable powders. A shampoo and lotion formulation is also available for the control of human lice. The formulated products often combine the synthetic pyrethroids with a synergist, such as piperonyl butoxide (which inhibits their metabolism), and they may also contain other insecticides.



Technical Hints— Sustainability

How to dispose of all your light bulbs and tubes at the end of their lifespan.



Be sustainable - Don't pollute your environment with mercury.

Paul Chapman from Pestproof has liaised with Key Industries and Garrards to provides prepaid boxes that can be filled with used UV tubes. They have agreed to provide collection and recycling bins at their respective depots.

- **Key Industries - 15d Paul Matthews Road, Rosedale, Auckland 0632**
- **Garrards -4/27b Cain Road, Penrose, Auckland 1061**

For Lower North Island – Contact Paul Chapman 0275 755 085 to arrange pick up, and for Hawkes Bay contact Gerwyn Jones 021 670 105

PMANZ are still working on a collection points for the South Island

In the meantime you can still order online a prepaid cardboard box from Inter-waste.

Click [HERE](#) order.

more than a membership
IT'S A PARTNERSHIP

