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ISSUE 132

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Bitesize...

Rodent borne diseases 06

Pest Control News talks to PhD student Ana Carolina Yamakawa, working on a collaborative project with the University of Reading and Killgerm Chemicals Ltd, regarding the latest research on rodent-borne disease.

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ENVU

Bayer completes sale of its environmental science professional business to cinven

Business to continue operations as an independent company called Envu Leverkusen, October 4, 2022 – Bayer has completed the sale of its Environmental Science Professional business to the international private equity firm Cinven, after the two companies had entered into a corresponding agreement in March.

The divested business is set to operate as an independent company called Envu. The business is a global leader offering solutions to control pests, disease and weeds in non-agricultural areas such as vector control, professional pest management, vegetation management, forestry, and turf and ornamentals. It is headquartered in Cary, North Carolina, United States, and is active in over 100 countries. Nearly 900 employees in total will transfer from Bayer to Envu.

"Envu is a global leader in a highly attractive and critical industry. We thank Bayer for the trust they have placed in Cinven and plan to build on the strong foundations established by Bayer by significantly investing in it," said Pontus Pettersson, Partner at Cinven. "Cinven is excited to build an independent, focused company and is well positioned to continue to drive innovation and accelerate growth, including the delivery of digital and data-enabled solutions, and to extend the product portfolio further by creating innovative and sustainable solutions for its customers."

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Laser researchers take aim at cockroaches

Cockroaches are a creepy pest found all around the world and in the UK. They are famously resilient – for years people believed they could even survive a nuclear bomb.

What they can't survive is the new laser and artificial intelligence system designed by a scientist at Heriot-Watt University in Edinburgh. Ildar Rakhmatulin tested his system on cockroaches last year. The findings are now published in Oriental Insects. Various and imperfect methods are used to try and control cockroaches: mechanical methods like sticky traps and chemical methods like gels and pastes. Traps have a limited range, and long-term use of chemical treatments can make cockroaches resistant to insecticides.

Rahkmatulin's system, which was all built using affordable, off-the-shelf equipment, detects cockroaches with high accuracy from 1.2m. The system relies on machine vision, which basically gives a computer the ability to see. Two cameras send signals back to the computer which give the cockroach's position. That information is used to point the laser toward the cockroach. Machine vision then confirms whether the cockroach is still moving or not.

The laser on low power could change cockroach behaviour: emitting persistent heat from the laser causes the cockroaches to change position or direction. This means they can be deterred from dark hiding places. Turning the heat up on the laser meant they could neutralise, or kill, the cockroaches from up to 1.2 m. "This laser system is selective and eco-friendly pest control method. It's extremely promising", says Rakhmatulin.

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The littlest rat catchers: New Zealand schoolchildren trap 600 pests in 100 days

As part of an attempt to rid Stewart Island of Brown rats, children as young as five have taken part in a rat catching competition, with remarkable results.

In a tiny school on the southern-most tip of New Zealand, the children are lining up their target species. The children are, proud of their catch – and fixed on the goal of eradicating rodents from the surrounding forests.

This small island school at Halfmoon Bay on Rakiura/Stewart Island recently worked with its students in efforts against the local rodent population, running a competition encouraging children to catch hundreds of rats in an effort to preserve the island's birdlife.

The children say they're dedicated to trying to rid the islands of rats so that native birds can thrive. The children's efforts are part of one of the world's most ambitious pest-eradication efforts; New Zealand's national goal of being predator-free by 2050.

Original article taken from theguardian.com

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Rodent Borne Diseases – an update

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Bacteria carried by rodents

Pest Control News talks to PhD student Ana Carolina Yamakawa, working on a collaborative project with the University of Reading and Killgerm Chemicals Ltd, regarding the latest research on rodent-borne disease. This current piece focuses on some of the most common and relevant bacterial diseases that could be transmitted by pest rodents.

Salmonella

Most types of *Salmonella* cause an illness called salmonellosis, which is one of the most common food-borne diseases and constitutes one of the major public health risks (Badger-Emeka et al., 2020).

House mice play a major role in the persistence of the pathogen in poultry flocks, which can persist in the farms through a perpetual faecal-oral cycle (Martelli et al., 2017). *Salmonella* infection in humans is caused by consuming raw or undercooked poultry, meat, milk, eggs, or egg products. The UK government has issued a code of practice in order to control rodent infestations on poultry farms, and the code details how *Salmonella* spreads via rodents and the possible ways to prevent infection in flocks (DEFRA, 2022).

Urban Norway rats are also known to carry *Salmonella* (Hilton et al., 2002). In a study carried out in the West Midlands, UK, the pathogen was present in around 10% of rats and 8% of droppings. It is especially important to highlight that *Salmonella* can persist and be recovered from rat faeces for many days e.g., 86 days according to the study. While 8% may appear to be small, since just one Norway rat and one house mice can produce approximately 40 and 80 droppings per day respectively, this could represent hundreds of droppings contaminated with *Salmonella*. Persistent rat infestation and the failure to efficiently remove the rodent droppings, during or after the infestation, can also present a potential risk of transmission.

***Escherichia coli* (E. coli)**

Escherichia coli is commonly present in the gastrointestinal tract of humans and animals, however, some serotypes can cause disease. The most well known is *E. coli* 0157, which can cause serious gastrointestinal symptoms. In 2019, the UK Health Security Agency identified more than 500 cases in England and Wales, with the majority incidence in children (1 to 4 years). Furthermore, the infection with a Shiga toxin-producing *E. coli* (the most common is 0157) was the third most reported zoonosis in the European Union in 2019 ("The European Union One Health 2019 Zoonoses Report," 2021).

Infection can occur by ingestion of food or water contaminated with the bacteria. Contact with an environment contaminated with farm animals' faeces, especially cattle, can also represent a risk of infection. The bacteria have been already identified in rodents and their importance in spread *E. coli* in farms recognized (Ferens & Hovde, 2011). Furthermore, isolates from a Norway rat have been shown to be identical to cattle *E. coli*, highlighting their role in the maintenance of the pathogen in farms.

Rat bite fever

Rat bite fever is a rare disease caused by two bacteria (*Spirillum minus* and *Streptobacillus moniliformis*) normally found in rats. The transmission occurs by the bite of rats, mostly in situations of handling or even in large infestations. It can also be transmitted by contact with water and food contaminated by rat urine. A number of years ago, a large outbreak affected 304 school pupils, likely to have been caused by the drinking of water that had been contaminated by rats.

Recently, a case of rat bite fever was reported in a senior man living in a vulnerable social condition in the UK (Pannetier & Lombard, 2020). The patient presented a hoarding behavior, and the house was in unsanitary conditions and infested with rats. He was found by the emergency service unconscious, underweight, and with swelling in the left knee. The analyses of the material in the knee confirmed the presence of *S. monilliformis,* one of the bacteria that are known to cause rat bit fever.

Leptospirosis and Weil's disease

Leptospira species are distributed worldwide, and rats are well known to be the most important associated reservoir for some pathogenic serovars (Icterohaemorrhagiae, Copenhageni) (Adler & de la Peña Moctezuma, 2010). The ingestion of contaminated water and food, or the exposure to contaminated water with rat urine in the environment are the main routes of infection. *Leptospira* presence in mud, moist soil, and water sources such as rivers, lakes, and even pods have already been reported (Bierque et al., 2020).

Usually, symptoms are mild and non-specific such as fever, headache and myalgia, although around 10% of the cases progress to more severe illness (Karpagam & Ganesh, 2020). This severe form, commonly known as Weil's disease, can cause jaundice, haemorrhages, and renal failure leading to death (Adler & de la Peña Moctezuma, 2010; Karpagam & Ganesh, 2020).

Furthermore, leptospirosis is an occupational hazard to workers in agriculture and animal production settings. In 2017, 92 cases of human leptospirosis were reported in the UK, of those, 87 occurred in England and Wales. Of the England and Wales cases 74 have been due to exposure to an animal, water source or reported to work in rivers or agricultural settings (Zoonoses Report UK, 2018). The use of personal protection equipment, such as gloves and adequate clothing, is the best way to prevent leptospirosis in pest controllers daily work activities.

Rats and antimicrobial resistance

Another concerning aspect of rodents is their capacity to carry bacteria resistant to antimicrobial drugs. Methicillin-resistant Staphylococcus aureus and antimicrobial resistance (AMR) in species from the family Enterobacteriaceae, has been identified in rodents (Rothenburger et al., 2018). The rise in AMR associated with enterobacteria is one of the top 10 threats to global health, according to the World Health Organization. A study identified that the presence of house mice increased by 1,61 times the risk of *E. coli* resistant to ciprofloxacin, in a turkey farm (Jones et al., 2013). As species that share their habitat with humans, understanding the mechanism by which the resistance genes are exchanged in rats and mice are of paramount importance (Hassell et al., 2019).

PhD project

While it is known that Norway rats are reservoirs for a vast number of disease-causing bacteria, and their proximity with humans and other animals can be a threat to public health, we are still uncertain as to the extent of the abundance and spread of the human pathogens they carry. To answer this question, a PhD project at the University of Reading is currently looking into using rat faeces to study human pathogens as well as antibiotic-resistance genes harboured by rodents. Through this first UK-wide study of rodent faecal samples, we will be able to anticipate disease emergence and better predict potential areas of risks. The study will analyse rat faecal samples provided by pest controllers (coordinated by Killgerm). If you are interested in participating, please get in touch with Ana Yamakawa (a.c.yamakawa@pgr.reading.ac.uk) or Matthew Davies (matthew.davies@killgerm.com).

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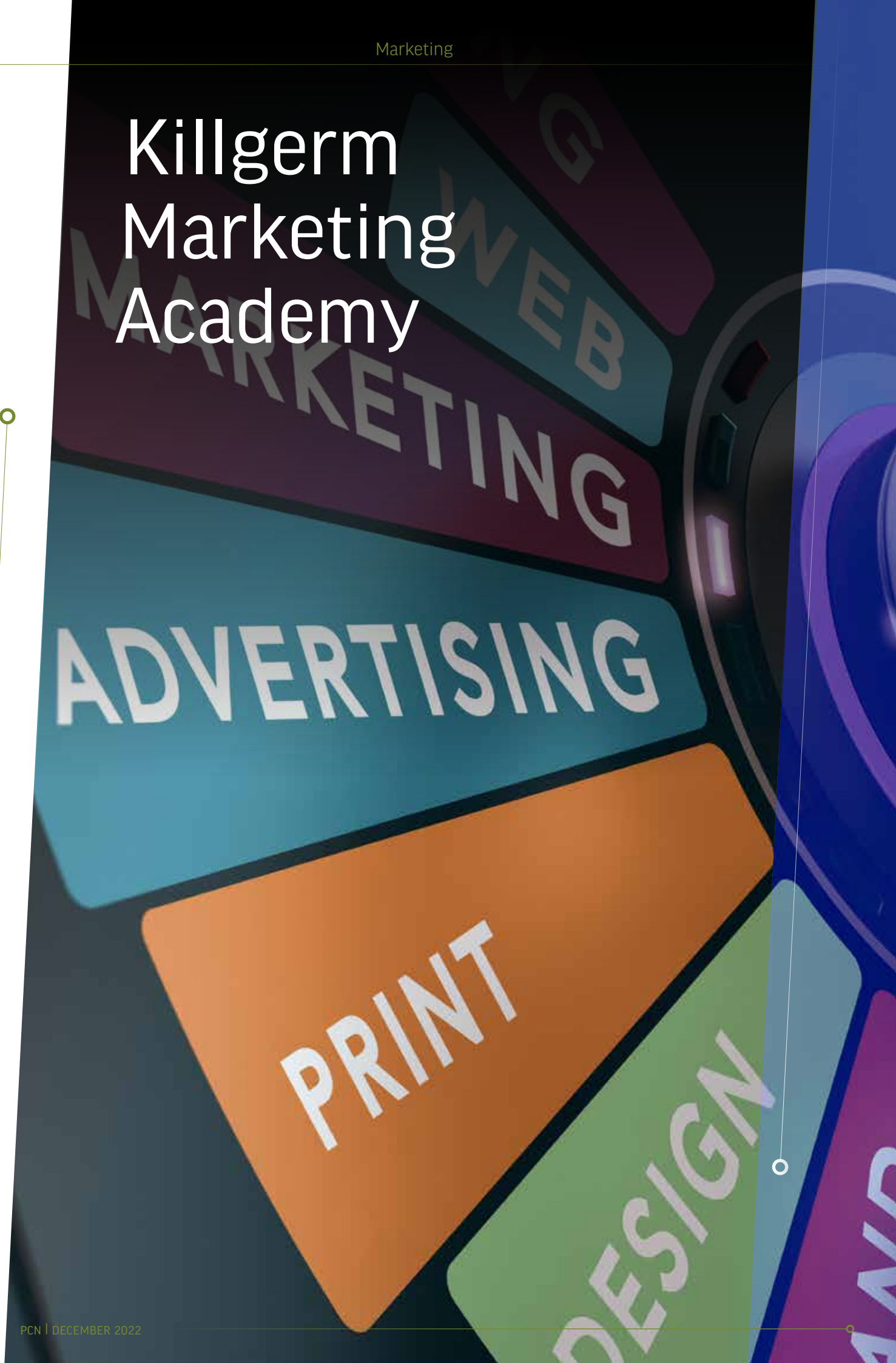
Killgerm Marketing Academy



Investing in growing and smaller businesses is key to maintaining and growing a customer base.

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This is something that Killgerm know well and is also why they choose to hold events such as the Killgerm Marketing academy.

This year, 30 businesses were hand-selected by the team to join a fully funded two-day marketing session.

The session aims to show you how to grow your business and seek out new clients with various methods.

The session was by Emma Ellse, who energetically talked through everything from social media to SEO.

During the sessions, there was a distinct focus on making the most of free marketing methods to support smaller businesses and help them grow to a point where they can invest in paid marketing.

The session was greatly received with feedback such as: "Thank you, Emma, for a brilliant course, one that kept me interested from the start and engaged throughout!" said Matthew Wall from RVM.

The session also included a one-to-one with Envu's team, discussing their new DPM systems and introducing their new lease option for the product making the system more affordable for businesses and clients.

PCN

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IT ALL KICKED OFF AT THE PCN DINNER!

In celebration of the World Cup 2022. PCN hosted a football-themed evening.

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From trophy-shaped table centres to football tables that ensured we got to see some healthy competitive spirit on the night.

Our sponsors helped ensure the evening was a success with welcome drinks at the bar courtesy of BASF.

The well-regarded raffle was reinstated for another year, consisting of prizes such as Dom Perignon, Harvey Nichols & Fortnum Mason hampers. The lucky winners walked away happy, and so did our nominated charity.

Each year the funds raised are doubled by Killgerm and donated to Water For Kids.

We were able to speak to Barbara from Water for kids, who said:

"A huge thank you from Water for Kids to PCN and Killgerm for your continued support and generosity at this year's dinner. The money raised at last year's Pest Control News Dinner paid for half of this year's project in Chisamba, Zambia. Although the district is only 70km from the capital Lusaka, the water points are a long way from tarmacked roads. Six new boreholes now provide safe water to 8,378 people in five villages and 519 pupils at Masaka school, where having water has meant bricks could be made to build much-needed new classrooms".

This was such great feedback, knowing that this year, we can donate a further £7,140.

This donation is accumulated from the £3,570 raised on the night by the raffle and the generous decision by Killgerm to double what was raised.

PestTech 2022

Almost three decades in, the exhibition continues to grow!

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The buzz at the Marshall Arena for this year's PestTech event stands testament to the fact that this industry still loves events like these.

This is a statement backed by the fact that there has been a 20% increase in exhibitors from the previous year.

Growth like this is a fantastic lead into the plans for PestTech 2023, the 30th anniversary of PestTech!

Something free-flowing at this event is the opportunity to talk and network on a scale rarely seen within the pest control industry.

An opportunity we should embrace now that we once again can.

We can once again ask the questions and get involved. As a rapidly changing industry, these events are vital in keeping up with the competition and getting your voices heard directly by the individuals who are a part of those companies.

The seminar spaces were packed with people taking part in talks and earning those all-important CPD points.

Seminars cover various relevant topic areas, which change yearly to keep things fresh and support you in learning, evolving & growing.

NPTA chief operating officer Steve Hallam said,

"It's been a fantastic show"

Lodi's N.B.D.M for pest control, Matt Towler, said:

"In terms of events, this is one of the best events of the year. We always have a very good turn-out - fantastic show!"

BASF's Jen Heppenstall said,

"We've had a good amount of traffic to the stand and had some great discussions"

James Shaw from Instant Pest Solutions said:

"It's my first time and I enjoyed myself, it's been really good and I'm glad I came. I read a lot of magazines about the new equipment that's out and stuff like that, but it's nice to see a lot of it first-hand as well"

"It's been very good"

said Darren McArthur from BioPest.

Steve Hallam added:

"The seminars have been absolutely brilliant, all credit to John Hope (NPTA technical manager) and to our seminar speakers. My sincere thanks go to them"

Sean Loakes, Syngenta's technical manager for the UK and Ireland, said:

"It's been a really, really amazing show"

Warfarin rodenticides to be withdrawn - update

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Due to an update in the official authorisation, please note that withdrawal dates on Grey Squirrel Bait have been updated and are now as stated below. This is a change to the dates quoted in PCN 131.

Warfarin, the first of the anticoagulants to appear on the market in the early 1950s, is to be withdrawn in the United Kingdom.

Killgerm Chemicals Ltd have confirmed this affects two of their products.

One is Sakarat Warfarin Whole Wheat UK-2017-1059 (warfarin 0.05%), a ready to use rodenticide for use by professionals for the control of rats in and around buildings, open areas and waste dumps.

The other is Grey Squirrel Bait UK-2019-1169 (warfarin 0.02%), a ready to use rodenticide for use by professionals for infoor use only against Grey Squirrels *Sciurus carolinensis* (This product should not be used in areas where red squirrels are present).

Relevant dates:
Killgerm have until 31st December 2022 to sell any stock of Sakarat Warfarin Whole Wheat and 21st February 2023 for Grey Squirrel Bait.

Sakarat Warfarin Whole Wheat can be used up until 15th March 2023.

Grey Squirrel Bait can be used up until 20th August 2023.

What are the alternatives?
For grey squirrel control, please see the article regarding DOC traps in PCN 131 – they are one potential alternative. The Spring Traps Approval Order 2018 lists many spring traps that are approved for grey squirrels https://www.legislation.gov.uk/uksi/2018/1190/made

Live capture traps for squirrels are also available. We report, in this issue, on research regarding oral contraceptives as a method of grey squirrel control.

Regarding rat control in the UK, there will be no other available first-generation anticoagulant baits. This includes the fact that Racumin Paste UK-2016-0953 (0.0375% Coumatetralyl) is no longer available for sale and its final authorisation date is 27th February 2023. Coumatetralyl remains available as a contact foam formulation. If users were selecting first-generation baits to lower the risk of secondary poisoning to non-target species, such as birds, cholecalciferol baits are an option. Cholecalciferol is not persistent in the environment and therefore it may be assumed to present a lower risk of secondary poisoning to some non-target species such as birds.

Selontra®

We identified resistance to both first and second generation anticoagulants on the site. We switched to Selontra® and had really impressive results in just a matter of weeks and would definitely recommend the bait to other pest control professionals. We've actually widened its use as well to some of our other sites because of the results achieved."

Andrea, Manchester Port Health

Core benefits

- **Rodents stop-feeding 24 hours after eating a lethal dose. Control is possible within as few as 7 days**
- **Stops the waste of resources**
- **Balancing performance and environmental impact**
- **Breaks the cycle of resistance**

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BASIS PROMPT opens new online learning platform for members

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BASIS PROMPT, an independent industry and government recognised register for professional pest controllers, have launched a new online learning platform for members. The portal will allow members to access unique, self-paced, interactive learning experiences to support their continuing professional development.

The platform has been made available following the success of BASIS Classroom, an online e-learning portal for BASIS Professional Register members. Tanya Kesterton, Head of Digital Learning at BASIS Classroom, who has been instrumental in the development of the PROMPT Classroom said 'BASIS Classroom has been available to BASIS Professional Register members for 12 months and has had over 17,000 course completions, awarding 35,000 CPD points to our members. We would like to see this success shared with our PROMPT Register members.'

This is a fantastic opportunity for pest professionals on the PROMPT register to stay up to date and continue their professional development at a time that suits them. Initially members will find recordings of the recent PROMPT hosted webinars, where completion of a short set of questions will gain members 1CPD point and there will be further modules coming soon.

Professionalism within the pest control sector is continually improving as people engaged in the industry are trained, qualified and improving skills through CPD. BASIS PROMPT is committed to offering development opportunities to support pest professionals. All BASIS PROMPT members will have access to the classroom with login details provided by email.

A new overwintering bug species!

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Industry entomologists have reported, this autumn, a bug species being sent for identification rather frequently.

Reports accompanying the samples have described clustering / overwintering behaviour reminiscent of cluster flies *Pollenia rudis* and harlequin ladybirds *Harmonia axyridis*. Is it too soon to call it the 'cluster bug'? Perhaps so but certainly worth a look at its biology and behaviour, with 'nuisance pest' potential.

What does it look like?

A common name for this is the 'plane tree bug'. More accurately, *Arocatus longiceps* / *roeselii* of the ground bug family 'Lygaeidae'. The black and red colouration makes it very distinctive indeed. Adults can be seen all year round and they measure from 6mm to 7mm.

What do we know about it so far?

We consulted www.britishbugs.org.uk for further information. UK interest in this species first started in 2007. This was following reports of numerous *Arocatus* bugs associated with plane trees Platanus in London. From its relatively recent immigration in 2007, it became abundant on plane trees in London by the end of 2015. There were also reports of this bug being abundant in other parts of southern England too. It turns out that *Arocatus* is also doing well in parts of western Europe, so we're not the only ones. Entomologists had much debate about the exact species of *Arocatus* being reported. The conclusion they came to was that this species should be referred to as *Arocatus longiceps*. *A. longiceps* was the conclusion because *Arocatus roeselii* was only known to feed on alder trees and not plane trees. The feeding behaviour was largely the basis for the conclusion.

A number of years on, some rather similar looking bugs were found in association with alders. They remained red and black in colour but appeared to have a more intense colouration. Research from Germany came to the conclusion that the two 'forms' were very similar indeed. In fact, genetic and morphological characteristics showed no significant difference between the two forms.

In Europe, some heteropterists (bug specialists! Entomologist is a general term regarding the study of insects) are using separate names for the two forms. They refer to *Arocatus longiceps* for the plane-feeding form. *Arocatus roeselii* is reserved for the alder-feeding form. It appears a lot more likely that both are actually the same species. The slight difference being that one develops a slight variation in adult colouration depending on the species of host plant they develop in association with.

Both of the *Arocatus* bug species feed on the seeds of their host tree. They are currently distributed widely in the southern half of England.

Both species feed on the seeds of the host tree and can be found widely in the southern half of England. Adults overwinter under bark. They are rather straightforward to detect under the characteristically flaky bark of planes. It is here that they often in reside in large numbers, clustering as they prepare to overwinter. *A. longiceps* produce several generations before this overwintering behaviour, communally under bark. The adult flies readily in warm conditions, when the coloured abdomen is conspicuous.

Where will we find it?

In future years, expect to find them overwintering in premises, in nooks & crannies, crack and crevices, voids and cavities and so on. Be reminded that they are harmless casual intruders but they can reach numbers that may be considered a nuisance. There is some potential for them to fall into food and result in contamination. However, they are not known as a traditional pest of public health significance and their carriage (or not) or pathogenic bacteria is unknown. If their control is necessary, select an insecticide appropriately labelled for 'crawling insects'. Alternatively, removal by vacuuming and depositing securely in an external bin is possible.

According to the CABI library, records include Germany, Hungary, Slovakia and Switzerland, with *A. longiceps* listed as 'introduced' to Austria, Czechia and Norway.

Risk assesment in Pest Management

This is the first article in PCN's miniseries on risk assessment. We will start with the basics and guide you through the steps and relate this directly to pest control.

5 steps of Risk Assessment:

- Identify the hazards
- Assess the risks
- Control the risks
- Record your findings
- Review the controls

The Health and Safety at Work Act 1974 means that we have to have a risk assessment by law for our working environment. The Health and Safety Executive (HSE) website has excellent information on risk assessment; however, it does not always relate completely to pest management. We are somewhat unique with the products we use and the huge variety of locations that we can find ourselves working in, sometimes on the same day.

Hazard vs risk

These are often confused. The definition of a hazard is something that can cause harm, the risk is the severity or the probability that harm may occur. For example, insecticide is a hazard, however if it is stored as safely as possible in a bunded, secure, chemical store correctly labelled - the risk from the insecticide is minimal. It will never be zero risk due to the nature of the product. It is when we begin to do things with the product that the risk increases along with severity and probability depending on what we do and who does it! An untrained person using an insecticide is much more likely to have an accident or incident due to an increased risk due to lack of training. The trained person may still make an error, or something goes wrong and that is usually where our fail safes apply, such as Personal Protective Equipment (PPE) – our last line of protection.

See Table: A few examples, in a roof space treatment scenario:

The next steps would be to mitigate the risks. Of course, not forgetting about one of the biggest hazards to us – customers. Customers can however be removed from the area we are working in or treating until fully dry and/or ventilated.

Mitigation – reducing the risks

There is a health and safety principle that applies to risk mitigation, ESTOP.

E-Eliminate
S-Substitute
T-Technical/engineering controls
O-Operator
P-Personal protective equipment

Elimination is by far the safest of all processes - do not use the hazardous substance in the first place. The customer again is a good example when it comes to elimination / engineering controls. Do not allow them or advise them not to go into the treatment area until a certain time. We can even eliminate ourselves; certain application equipment can be operated by remote or has a timer. Another good example is using extensions for applying products at high level and allowing us to be outside the treatment area which is a classic engineering control.

Substitution, for a safer more effective alternative. Sprayed chemicals were used as routine for cockroaches – edible gel baits are safer especially for vertebrates and are much more targeted than broad band spraying. Technical or engineering controls, the remote operation of equipment would apply here, also the use of extension lances, the further you are from the product the safer it is. Operator – simply put…trained and competent to conduct the work required.

PPE – if anything does go wrong, we are wearing the correct PPE for the work being conducted, therefore protecting us from the potential effects of the chemicals or the pests, if we were treating wasps, we would be wearing a specialist protective suit.

How do we reduce the risks in our roof space?

First ask the question – do you need to access the roof space? We can conduct a quick visual from the hatch access prior to full entry. We always need to check where our treatment may end up! Especially if treating from the outside.

Enclosed area, no ventilation: consider powered breather equipment, request the access is left open.

Hitting head: wear a bump cap or hard hat, carefully look where you are going. Trip over unseen objects: add light for better visibility (however take care if it is a wasp treatment, don't wear a head torch.Contract a disease: if mice we can disinfect the area prior to treatment. Stings: wear an appropriate bee suit.

Spillage, slip on wet surfaces, inhale, or other contact the chemicals, take care where you step, start at the further point and work towards the exit point. Slip coefficient footwear can prevent you slipping, check your footwear. Inhalation can be avoided by following the product label, using at correct pressure, dilution, application rate with the correct nozzle. If bats are present, stop and inform the Bat Conservation Trust – get advice.

Heat exhaustion can be incredibly dangerous, you can even lose consciousness. Be aware of time spent in the space, take regular rehydration breaks away from the area and cool down before continuing if working longer periods. Small access/egress space, allow time to get in and get out. Ensure the access equipment is appropriate prior to using it. A quick inspection via the hatch access will give you chance to decide an action plan before going into the space at all.

Reminder points:

- We need a risk assessment for each job and a site-specific risk assessment for each site.
- Most risk assessment for jobs may be accompanied by a control of substances hazardous to health (COSHH) assessment (the risk assessment for the chemical) document.
- All the documentation that surrounds our work seems complex and time consuming, however for similar jobs in similar environments we could have a generic document which can be tailored, as necessary.
- If you are unsure or don't feel confident – STOP and seek advice.
- The next installments will look into specific risk assessments for certain more common tasks.

Hazard	Risk
Roof space	Enclosed area, no ventilation
Low beams	Hitting head
Low light/no light	Trip over unseen objects
Pests	Contract a disease (e.g. Hantavirus), be stung e.g. allergic reaction
Chemicals	Spillage, slip on wet surface, inhale, or otherwise contact the chemicals. Harm other creatures, e.g. bats
Heat	Heat exhaustion/dehydration, wearing lots of PPE can make you incredibly hot especially at the height of summer
Access/egress	Often a small access/egress point with ladders or steps used – slips, trips and falls from height could all apply

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Bell LABORATORIES, INC.

Pest controllers encouraged to submit records of Norway rat and house mouse sightings

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What do you mean there are hardly any rats and mice?
The Mammal Society are recording the distribution of Norway rats *Rattus norvegicus* and the house mouse *Mus musculus*. They need our help! Pest controllers are encouraged to submit records of Norway rats and house mice to support the distribution mapping of these species by the Mammal Society.

Interestingly, there will be a new edition of the Atlas of European Mammals published in 2024. In the UK, the distribution maps for Norway rats and house mice are extremely bare. Strangely, there are seemingly no rats or mice in a variety of places where we know the exact opposite – they are there! So, there is a clear need for more records and there is no one better placed to provide these than those involved in pest management.

How do I get involved?
The way to submit sightings is via the free Mammal Mapper app: *https://www.mammal.org.uk/volunteering/mammal-mapper/#:~:text=Mammal%20Mapper%20is%20a%20FREE,of%20mammals%20in%20the%20UK.*

Uploads via the Mammal Mapper are the ideal way to go about this. However, if people have a large back-catalogue of records that they would like to submit, we can accept information in other ways (e.g. as a spreadsheet). The critical information is:

Location (latitude/longitude, or we can convert from BNG X and Y, or Ordnance Survey grid references).
Observer
Date

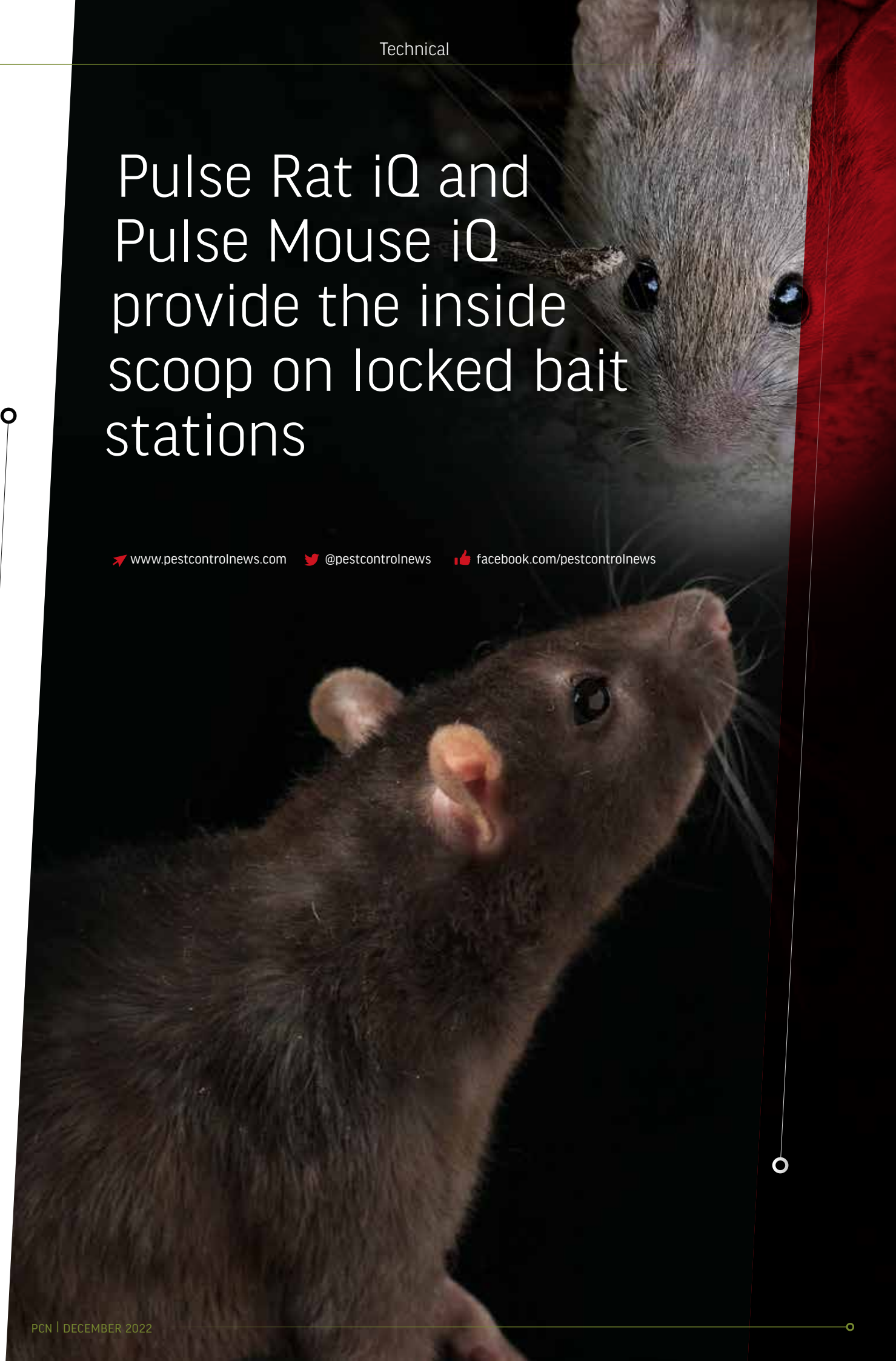
Furthermore, if there are photos to confirm species (especially for black rat, but also for mice, given that there can be confusion between species) that would be very helpful also.

Of course, there are potential issues with confidentiality and sensitivity regarding the location of pest species and we expect pest controller will be cautious with submissions.

A bit more background
Writing in 'Wildlife Reports', Guy Freeman reported on a lack of data regarding house mice and Norway rats in the UK, even posing the question "Have you seen a house mouse *Mus musculus* lately?" In wildlife records, there are familiar problems with widespread species have few records. A part this will be over-familiarity in that it is perhaps 'boring' to record common species. The excitement is around reporting something rare or beautiful versus a familiar and undesirable pest species. So, it holds true - there are notably few records of house mice in the Mammal Society database. If the database is to be taken on face value, you could believe that house mice have disappeared from a large part of Scotland. Completely gone, apparently, from Stirling across to the west coast and Inverary in the north to Cairnryan in the south. Records are also thin on the ground across a big chunk of northern England and much of Wales. Looking at scientific papers shows a similar lack of interest when it comes to academics. There are seemingly no papers to inform estimates of house mouse distribution or population densities.

It's a similar story regarding records of Norway rats *Rattus norvegicus*. There are no records of Norway rats after 1992 for Carmarthen, a lot of Oxfordshire, or between Hull and Spurn points. Rats and mice have a role in the spread of disease and have their own ecological impacts, so data gaps in their distribution need to be plugged. The message is a simple one – please submit records!

Pulse Rat iQ and Pulse Mouse iQ provide the inside scoop on locked bait stations



Tamper resistant bait stations contain more than bait and traps, they contain a wealth of information for the pest control operator (PCO).

Once a bait station is opened, evidence can be gathered, such as whether there was rodent activity since the last service.

This can be determined if the bait looks like it was consumed or if there are droppings or nesting material present. While this information is valuable, it is also limiting, leaving many unanswered questions about rodent activity levels, which if were known, would make it easier for PCOs to quickly enhance service at the account.

If these locked stations could never be opened again, there wouldn't be any way to get useful information out of them. The information that is needed to proceed with the job responsibilities would be stuck inside, along with the activity history. Opening and servicing each station, again and again, regardless of activity, has been one of the main ways PCOs have been gathering rodent information since the invention of bait stations decades prior.

Now there is an easier and more high-tech way to gather that necessary information, without having to open each individual locked station. In a click of a button on any smart device, know all the information needed to properly service an account, plus more, by simply using iQ products, powered by Bell Sensing Technologies. With iQ technology, PCOs now know the exact number of rodent visits to a station, timestamps of each visit, and historical and seasonal trends of activity at the bait station. This compiled data gives operators information on when and where rodents are traveling. Not only is this information available on site, but reports are also automatically generated and emailed at the completion of each service visit. Reports received can be shared with the customer, providing proof that there is rodent activity, which increases a technician's service offering to the customer. This information is knowledge, knowledge that the PCO can use along with his or her professional training, to come up with educated solutions for the pest problem at hand. The power of iQ is evolving the way the rodent control industry conducts business, by taking away the most repetitive and time consuming aspects of the job.

PCOs do not have to spend their time bending over and kneeling to open hundreds of stations at a single account. iQ products directly communicate through Bluetooth technology to the Bell Sensing App. PCOs only need be within proximity of the devices to download its information. The time saved from not having to open every single station can now be used in other aspects of the job, such as conducting inspections, exclusion efforts, other pests, or visiting a greater number of accounts in a day.

Switching to iQ products is easy because multiple gateways or Wi-Fi passwords for each account are not required. All that is required to get started is to create a free account, purchase the devices and download the Bell Sensing App. Using either the Pulse Rat iQ or Pulse Mouse iQ bait station, instantly begin monitoring rodent activity at customer locations. Gather knowledge and turn it into power to solve rodent activity problems, quickly and efficiently.

To learn more about how iQ products can benefit your business, reach out to your local Bell Representative, or visit **www.bellsensing.com.**

PULSE RAT iQ STATION

PULSE MOUSE iQ STATION

iQ RAT T-REX TRAP

Asbestos 2022

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The Asbestos-related disease statistics, for Great Britain 2022, have been released following on from the Asbestos Management Report (published April 2022). Responses from parliament have also been released and various bodies with a vested interest. So, where are we, what is happening and what is next?

Asbestos is still mined in a few locations globally.
Countries such as Russia, China, and Kazakhstan. Countries still importing, exporting, and using asbestos include United States, China, Russia, and India. The UK fully banned all asbestos in the construction industry in 1999. Following prior bans on blue and brown asbestos in 1985. Hard to believe countries are still using asbestos when we know the massive impact and loss of life it caused and is still causing. Any new build or building renovated until the year 2000 could contain asbestos too. As dangerous as asbestos is, it still has properties that far outweigh other materials. Examples are it insulation against sound, heat, fire; it is resistant to chemicals, water and electricity and it is cheap. Unfortunately, asbestos turned out to be a hidden killer. Take this as a timely reminder to do awareness training to keep us up to date on the dangers of asbestos, what it looks like and what to do if we find it.

The issue with asbestos is the inhalation of the fibres. This is sited as the cause of asbestos related diseases. Once in the lungs, the fibres become lodged (due to their microstructure) and are unlikely to the removed by the body, they can become encapsulated by tissue, scarring, and thickening the surrounding tissues and in the lungs, this can lead to difficulties breathing, pleural thickening, mutation, and cancers. But…we do not see these symptoms till many years later.

There are currently over 5,000 Asbestos-related diseases reported annually (including mesothelioma, lung cancer and asbestosis). In 2020 alone there were 530 deaths noting asbestosis as the cause of death on the death certificate. These are still high numbers – should they be decrease in by now? The answer lies in the number of people that were knowingly exposed, hence the numbers can be predicted from that aspect, but the unknown people that were exposed unknowing can create a curve ball in the numbers and perhaps the reason why once the ban came into force on asbestos the number of cases continued to rise for some time as more people has been exposed than originally thought.

The good news is that in the report, deaths are showing as reaching a plateaux and post 2020 are fully expected to decrease (mesothelioma related). The report implies that we are over the hump in the data – finally the nightmare that was asbestos is plateauing and could be petering out. With the most recent data, the key period for exposure was between 1950 and 1980, after this the warning signs were seen, and the following decade saw the ban implemented.

The deaths around 2020 were thought to have been affected by the coronavirus pandemic, a 6% rise in male deaths was seen and a 7% rise in female deaths when compared with 2019. People were not seen, and treatment was delayed due to the impact and strain from covid-19. This was not helped by the onset of asbestos related cancers, which usually manifest symptoms late in the cancer stage. Therefore, when they are discovered, it is often too late, with the added delays of hospital treatment times we see the consequential rise in related deaths.

Further detail shows us that two thirds of annual deaths for both males and females now are in the over 75 bracket, whilst the death below age 65 are decreasing. However, disturbingly because asbestos is still present

in buildings, there are still people (albeit extremely low numbers) that are still being exposed to asbestos.

For asbestos-related lung cancer there are direct links to smoking, so if a smoker was exposed to asbestos the risk is increased. However, in the current climate there are now a decreasing number of smokers and there has been for several decades as the risks have become known. Therefore, with the decrease in people smoking and the exposure to asbestos there is again a direct link in the decrease of diagnosed cases, we should see eventually fewer cases overall as time goes on.

Asbestosis

We do tend to focus on the deaths and related cancer diagnosis, there are also the non-malignant asbestos-related diseases. Namely Asbestosis, amounts others. This is characterised by the scarring and inflammation of lung tissues following inhalation of asbestos fibres. Again, symptoms develop many years after initial exposure. Unfortunately, the effect of COVID-19 was seen again. 112 of the 530 deaths from Asbestosis mentioned COVID-19, with 103 citing it as the underlying cause of death. It is thought that the deaths noting both would not have occurred if the pandemic had not happened. The statistics overall are following the same trend as mesothelioma and cancer related deaths. A plateaux and eventual decline.

Which areas were/are most affected?

It will come as no surprise that the areas of people geographically most affected are areas of historically heavy industry, with the Northeast peaking and now fully in decline. Other regions covering the rest of the UK do loosely track the increase and plateaux although much lower than that of the Northeast.

Where are we now?

Sadly, neither the Health and Safety Executive (HSE) or the Government has a strategic plan to remove all asbestos in all buildings. (Estimates from HSE suggest that approximately 300,000 non-domestic building still contain asbestos). The estimate for the total removal goal is up to and around 40 years. The current challenge is than many buildings are being retrofitted to set them up for net zero emissions, but on the downside of this the consequential building works may expose hidden asbestos within existing buildings – the quest to lower emissions potentially increasing asbestos related diseases in 30 to 40 years time.

It is not all doom and gloom

Taking the positives from the asbestos fiasco...

- The numbers of all asbestos related diseases have reached a plateau and if the reality follows the predicted trend, then there should be a decrease going forward Keep a watchful eye out for asbestos, avoid it and report it as necessary
- Stop work and report asbestos if you think you have found any
- Raise awareness – there are some brilliant resources and asbestos awareness courses, take advantage of them and keep yourself and those around you safe
- Many of the deaths due to asbestos would not have happened if the pandemic had not occurred, if COVID-19 did not have enough to answer for already!

All references, details, sources of information and research are available on request by contacting technical@pestcontrolnews.com

Plant protection products (PPPs): register as a professional user

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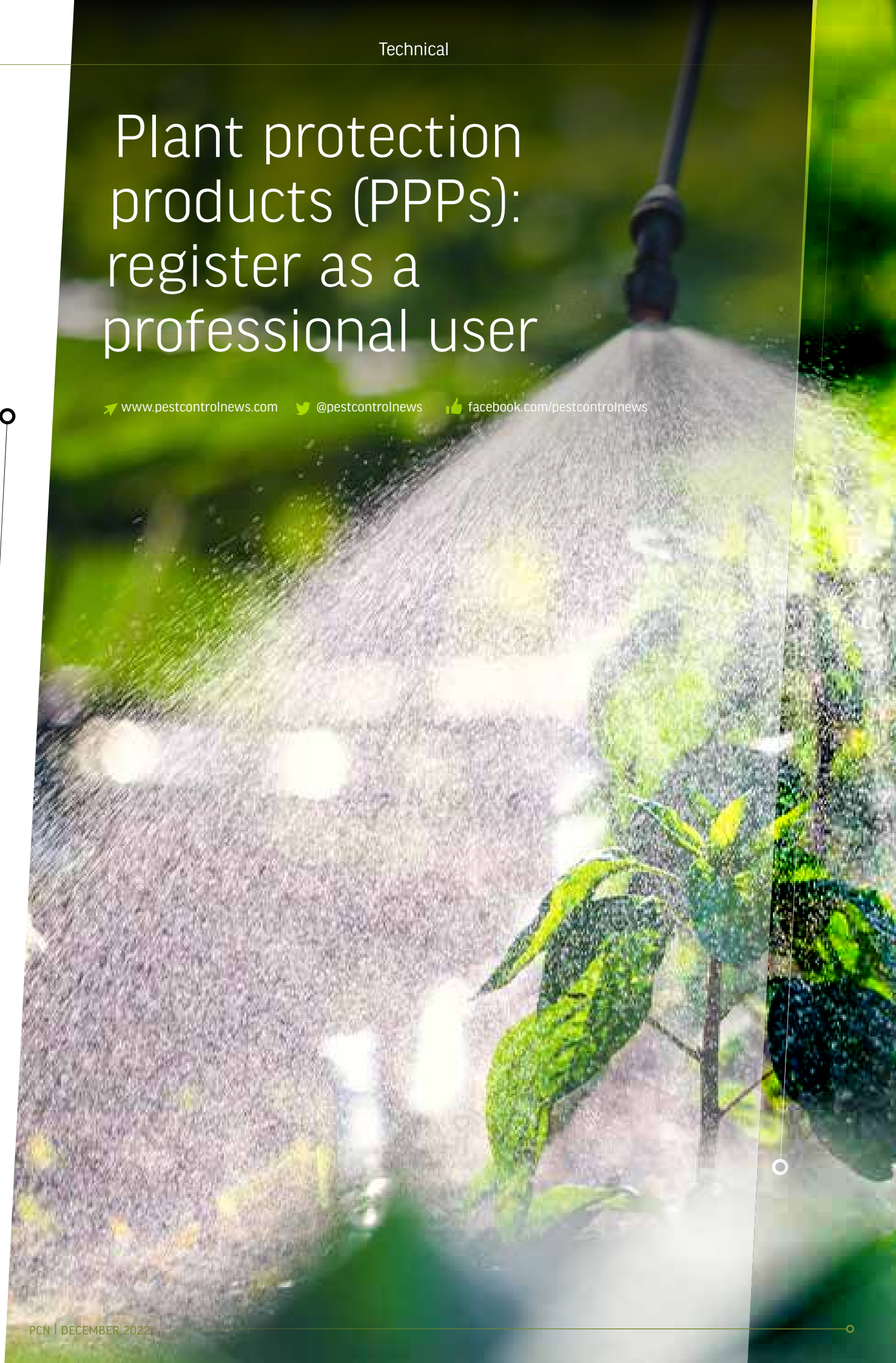

If you're a business, organisation or sole trader that uses PPPs and adjuvants professionally in Great Britain, register to comply with regulations. https://www.gov.uk/government/publications/professional-plant-protection-products-ppps-register-as-a-user

Details
If you use plant protection products (PPPs) and any adjuvants professionally in Great Britain (England, Scotland and Wales), you have a legal obligation to register under the Official Controls (Plant Protection Products) Regulations 2020. Read more in the policy statement.

You are considered a professional user if you use PPPs in your work. This includes operators, technicians, employers and self-employed people, in all sectors.

Register using this form. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1108264/ocr-professional-ppps-registration-form-users_v2.0.xlsx

or

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1108278/ocr-professional-ppps-registration-form-users-ODS_v2.0.ods

There's a different form to register as a business that places PPPs, their ingredients or adjuvants on the market for professional use.

When to register
You must register within 3 months of starting business.

If you have not yet registered and your organisation or business has been using PPPs for more than 3 months, you must register as soon as possible.

Compliance and enforcement
By completing and sending in this form, you are notifying your competent authority. This is:

- the Secretary of State in England
- Scottish ministers in Scotland
- Welsh ministers in Wales

The Department for Environment, Food and Rural Affairs (Defra) will collect information from this form on behalf of the Scottish and Welsh Governments.

Regulators will take a proactive, risk-based approach. This approach will consider:

- the nature and scale of businesses
- past records of compliance
- the activities under their control
- the reliability and results of controls performed on the operator

PPPs and adjuvants
PPPs are used to control pests, weeds and diseases. Examples include:

- insecticides
- fungicides
- herbicides
- molluscicides
- plant growth regulators

PPPs can exist in many forms, such as solid granules, powders or liquids. They contain one or more active substances, co-formulated with other materials.

PPPs can be used with adjuvants. An adjuvant is a substance that enhances or is intended to enhance a PPP's effectiveness. An adjuvant does not have significant pesticidal properties but is still subject to regulatory control.

Who must register
You must register if you are a business, organisation or sole trader that uses PPPs and any adjuvants professionally in Great Britain (England, Scotland or Wales).

This includes you if you:

- use PPPs and any adjuvants as part of your work
- have PPPs and any adjuvants applied by a third party as part of your work in agriculture, horticulture, amenities or forestry
- are a contractor hired to store or apply PPPs and any adjuvants for others
- are a volunteer and you apply PPPs and adjuvants during your work, for example at amateur sports clubs

You do not need to register if you use amateur PPPs in your garden. This form is for professional users.

Sectors
The form asks you which sector or sectors you work in.

Agriculture and horticulture
This includes work in agriculture or horticulture, such as farming or maintaining arable crops, forage crops or livestock, or treating seeds.

Amenity
This includes work in gardening, landscaping, grounds maintenance, or another role in an amenity setting, such as in:

- parks
- sports grounds, including golf courses
- public or private property
- infrastructure, such as roads, railways and waterways
- utilities, such as transport and water companies

Forestry
This includes work in forests or woodlands, such as in:

- tree management
- tree planting
- use of forests or woodland

Local authorities
Local authorities (LAs) that use or store PPPs must register as professional users. This includes where employees of LAs apply PPPs, and where LAs hire a third party to apply PPPs for them. Contractors hired to apply PPPs for LAs should register independently.

Seek further advice here https://www.gov.uk/government/publications/professional-plant-protection-products-ppps-register-as-a-user/how-to-register-as-a-user-of-professional-plant-protection-products-ppps-and-adjuvants

Department for Environment Food & Rural Affairs

Rodent traps can be effective at controlling house mice infestations

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ECHA/NR/22/19

https://echa.europa.eu/es/-/rodent-traps-can-be-effective-at-controlling-house-mice-infestations

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

Helsinki, 29 November 2022 – In its November meeting, the BPC adopted its opinion on the comparative assessment for the second renewal of all anticoagulant or anti-vitamin K (AVK) rodenticides in the EU. This assessment, which looked at chemical and non-chemical alternatives to anticoagulants, was done by ECHA at the request of the European Commission.

In summary, the opinion is the following:

- **Non-chemical alternatives:**
  - Mechanical traps used by the general public and (trained) professionals to control house mice indoors are considered effective.
  - Use of these traps in this setting does not present significant practical and economical disadvantages and will result in a significantly lower risk for human and animal health and for the environment compared to anticoagulant rodenticides.
  - It was recommended to obtain more information to confirm the conclusion, as the available test did not consider different infestation situations (for example types of building, types of traps and levels of infestation).
  - The BPC could not conclude on whether mechanical traps are effective for permanent baiting.
- **Chemical alternatives:**
  - Cholecalciferol and alphachloralose were considered suitable for controlling house mice and permanent baiting for (Tech ed. Note - for UK readers, follow the product label directions as permanent baiting is not permitted for alphachloralose products) indoors when done by professional users.
  - The BPC could not conclude that cholecalciferol and alphachloralose have a significantly better hazard profile for human health, animal health and the environment compared to the anticoagulant rodenticides.
  - Carbon dioxide was considered suitable for mice control by trained professionals for permanent baiting indoors. It has a significantly lower overall hazard profile and risk compared to anticoagulant rodenticides.

"For the use and effectiveness of rodent traps for indoor control of mice, we had one test available. This test was carried out according to existing EU guidance. The committee discussed if one test is sufficient, but as it proved that the trap used was effective, we concluded that rodent traps are suitable alternatives," says *Erik van de Plassche*, Chair of the BPC in a new episode of the Safer Chemicals podcast.

Next steps

The opinion of the BPC will be sent to the European Commission, which will prepare its decision based on the opinion. The Commission's decision is expected to give recommendations to the Member States on how to proceed with the product authorisations for anticoagulant rodenticides. The next comparative assessment is expected in five years.

Yellow mealworm beetle

Tenebrio molitor | Family: Tenebrionidae

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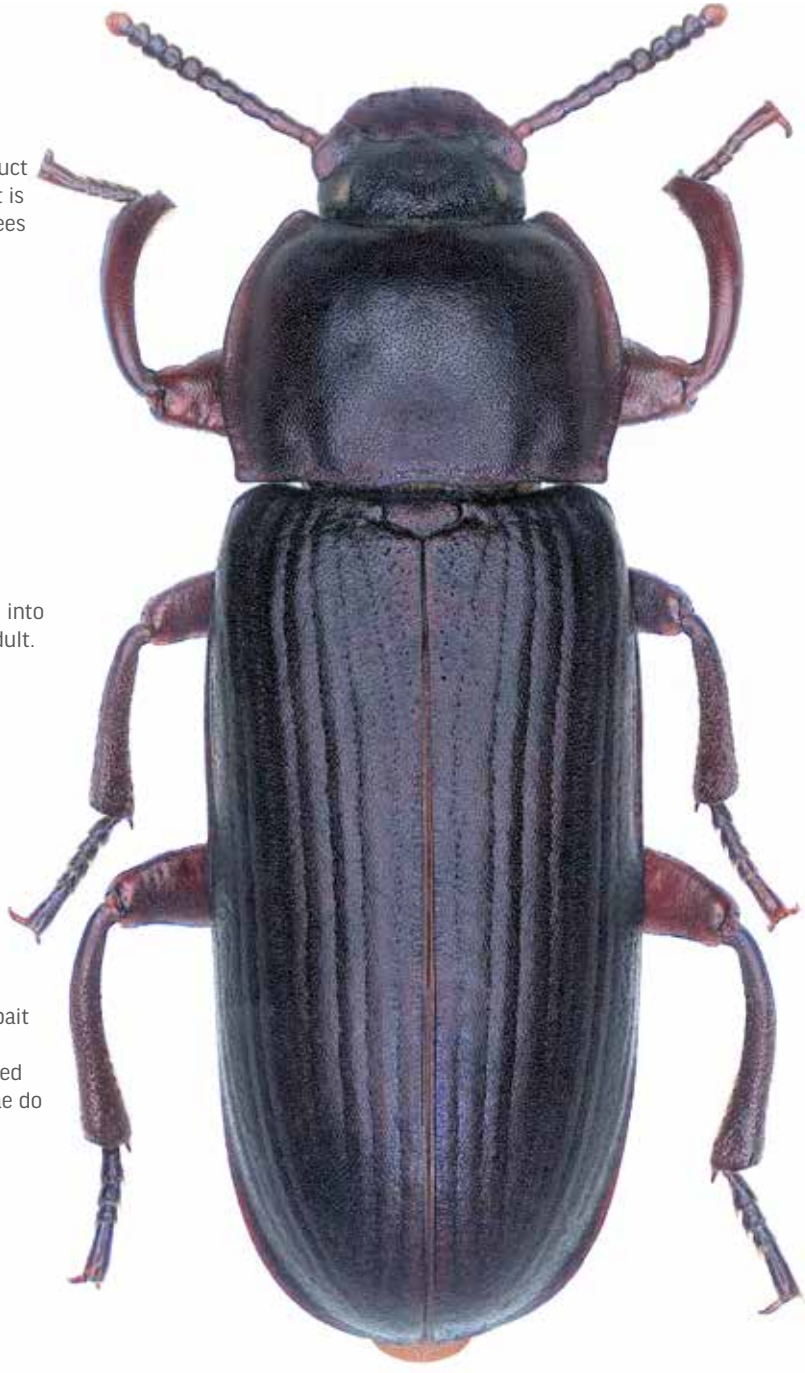
A pest of cereals, flour and product derivatives of this. In the field, it is found typically in the bark of trees and in bird nesting material.

The adult size is between 12 and 18mm, coloured brown-black Adults can fly. The larvae are up to 3 cm in length, yellowish-brown in colour.



The life cycle is complete metamorphosis which is divided into 4 stages: egg, larva, pupa and adult.

The life cycle, dependent on temperature, can vary from a few months to 1-2 years. The female deposits around 500 eggs throughout her lifetime.

Their larvae are reared as food for pets and birds, also as bait when fishing. In some countries the larvae are consumed by humans as a snack. The larvae do have a high nutrient content.

Recent studies have shown that the larvae can consume and degrade various materials such as plastic and polystyrene foam, opening new opportunities of recycling these materials.

Top photo: *Tenebrio molitor.* Udo Schmidt ©. Flickr.
Bottom photo: larva *Tenebrio molitor.* Clemson University ©. Bugwood.org.

Delusory parasitosis

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Mild arachnophobia is something that many of us are aware of -an unfounded fear of spiders that has many people running for cover even when the ones they encounter are harmless. A more distressing and difficult problem is faced with people suffering from 'delusory parasitosis'.

In extreme cases, the afflicted person believes their body or home to be infested with usually invisible biting insects or mites, despite none being present. Cases of delusory parasitosis are known all too well in the pest control industry, with sufferers seeking help from pest control professionals and entomologists, sometimes being referred to a dermatologist and finally a psychologist.

When speaking to a sufferer, the distress caused by the condition becomes clear. The 'insects' responsible are claimed to be elusive and even invisible. Entomologists will be unable to find any trace of the offending organisms and pest controllers will find that it is illegal to perform a treatment if no pest is present. An afflicted individual will be desperate for help, offering detailed descriptions of their problem and a collection of possessions for analysis, typically bedding and clothing.

Sufferers of delusory parasitosis will often state that the 'insects' in question are not visible, biting, have infested and are coming out of household items, or will come out of their pores and often change colour. As well as experiencing the feeling of being bitten, crawling, buzzing, stinging and itching sensations will also be described. The sufferer will sometimes be very clear about how, when and from where the infestation originated. Another clue, when trying to recognise delusory parasitosis, is that the infestations described will last for a long time - months and years, yet most real infestations do not last this long. Other family members may have or develop delusory parasitosis and sufferers will have various skin lesions and scratch marks from scratching with fingernails or trying to remove the believed parasites with sharp objects.

Delusory parasitosis is traditionally more common in women and can be caused by a combination of psychological stimuli such as stress, physical stimuli such as static electricity and physiological stimuli such as allergies and drug abuse. Static electricity can even make debris 'jump' thus mimicking some insects. When under stress and experiencing static electricity shocks, paper cuts and skin irritations, our mind can play tricks on us and it is easy to blame a non-existent insect.

Reducing stress levels can sometimes help the sufferer with their affliction. A pest controller may feel that treating a property with insecticide could help a sufferer, by giving them some temporary relief with the idea that the 'insects' will have been killed. However, as stated this treatment will be illegal and the sufferer could report that the 'insects' have returned, plus an actual treatment by a pest controller can reinforce the belief of a sufferer that 'insects' are indeed present. Sometimes, the focus of attention may shift to the insecticide application and a sufferer may then claim to be experiencing poisoning due to the insecticide. In some cases, although an individual may show all the common signs of suffering from delusory parasitosis, they may actually have an infestation and a real problem due to a real insect. For this reason, a thorough investigation should always be undertaken.

Illusory parasitosis

Less dramatic, mild forms of delusory parasitosis can be more widespread than one might realise. The fictitious 'cable bug' and 'paper mite' are the usual suspects and are covered by the term 'illusory parasitosis' i.e. a real problem imagined to be caused by insects. Once a person believes that a 'bug' has bitten them, the itching can be infectious, typically in a modern office situation. A scenario such as this is often due to 'Bells syndrome', itching and biting spreading from person to person in a mini wave of mass hysteria. Actual insects are rarely the cause and environmental factors are usually to blame. Static electricity, paper and dust particles can irritate office workers' skin (dry skin is particularly susceptible), as well as worn carpets shedding fibres, with particular temperatures and humidity making the problem worse.

Anti-static and cleaning products can be introduced, air conditioning and ventilation systems can be cleaned to remove potentially irritating airborne particles, changing temperature and humidity, replacing worn carpets and improving standards of cleanliness in the office can all help to reduce the occurrence of this phenomenon.

The following is a list of real arthropod species, unlike the imaginary ones described by sufferers of delusory parasitosis. These can all be pests of humans: some biting, some infesting, some causing skin irritations.

- Scabies mite: *Sarcoptes scabiei* Can infest humans, burrowing into the skin and are transmitted by close personal contact.
- Bedbug: *Cimex lectularius* Will feed on the blood of human hosts at night as they sleep.
- Human louse: *Pediculariusus humanus* Can infest and bite humans, causing much discomfort to on infested individual. Scratching of the bites may result in secondary infections. Outbreaks of head lice typically occur in schools.
- Crab louse: *Phthirus pubis* Can infest and bite humans, causing much irritation and are often spread through sexual contact.
- Bird flea: *Ceratophyllus gallinae gallinae* May feed on humans although birds ore the preferred host. The bird flea cannot complete development on human blood alone.
- Cat flea: *Ctenocephalides felis felis* May feed on humans although cats are the preferred host. Is also an intermediate host for the cestode tapeworm, Dipylidium caninum.
- Red poultry mites / bird mites: *Dermanyssus gallinae gallinae* May feed on humans although birds are the preferred host. They cannot breed in association with humans alone.

New Products

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Gloria Multijet Washer

The Gloria 18v MultiJet is a battery powered pressure washer. The operating pressure can be regulated between 2.5 and 24.9 bar. The MultiJet can draw water from any source (bucket, water butt, bottle or tap).

Powered by a 4Ah battery (supplied separately), this pressure washer is ideal for guano removal from balconies/ledges or just general cleaning of bins, bin areas and vans. The foam set can be used to create a foam to aid in general cleaning /disinfection.

Night vision camera

Digital Night vision camera with photo and video recording function. 12MP / Full HD 1080p-30fps resolution with 8 times digital zoom and adjustable LED IR light.

Working range 3 meters – 200 meters day and night. Perfect tool for night surveys of birds, rodents and rabbits. The camera is supplied with a 2000mAh rechargeable battery.

Cimex Bag

Carry the Polti Cimex Eradicator with this practical and spacious carrying case with handles and a shoulder strap. The carrying case is divided into two compartments that allow you to store the unit safely and to protect it from any damages.

Time to team up against 'super rats' says trade body

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Farmers and pest professionals working together can help limit 'super rat' populations, a national trade body has said.

Experts at British Pest Control Association (BPCA) are urging farmers to consider bringing in pest professionals to help prevent the spread of rodenticide resistance among rat populations.

The call follows a recent survey by BASF, which revealed 88% of farmers don't check levels of resistance to rodenticides in their area before use.

Dee Ward-Thompson, Head of Technical at BPCA said: "Farmers who use rodenticides without checking resistance levels in their area may be inadvertently contributing to the spread of so-called 'super rats.'

"This means they will be unsuccessful in dealing with the issue on their farm and risk the problem spreading to their neighbours and beyond."

Farmers that continue to use traditional rodenticides in areas of high resistance will eliminate rats with no resistance while allowing those with resistance – the 'super rats' – to continue to breed and expand their population unchecked.

Ms Ward-Thompson added: "BPCA member companies have access to a wide range of products and techniques that are not available to members of the public and are best placed to work with farmers to tackle an infestation.

"We encourage farmers to consider pest professionals in a similar way to agronomists, in that they are brought in to manage risk and protect profits.

"Farmers who establish a regular pest control maintenance contract with a pest professional such as a BPCA member can mitigate risk from multiple pests under one contract."

A BPCA member company will have the technical knowledge and experience to apply products in an efficient manner while minimising risk to the environment and non-target species.

BPCA members:

- Carry the correct insurances
- Are trained and qualified technicians
- Are assessed to the British Standard in pest management EN 16636
- Follow BPCA's Codes of Best Practice.

To find a BPCA member visit: bpca.org.uk/find.

BPCA British Pest Control Association

Kit maintenance: Night vision camera (Denver NVI-491)

www.pestcontrolnews.com @pestcontrolnews facebook.com/pestcontrolnews

This Digital Night vision camera has both photo and video recording functions. 12MP / Full HD 1080p-30fps resolution with 8 times digital zoom and adjustable LED IR light. Working range 3 meters – 200 meters day and night. The perfect tool for night surveys of birds, rodents, and rabbits, maybe even some insects too. The camera is supplied with a 2000mAh rechargeable battery. But how do you look after this piece of kit to keep it working perfectly?

There are some simple safety guidelines for this item: operating and storage temperature is between -5 degrees Celsius to 40 degrees Celsius so we are fine in the UK for the most part! Do not expose to heat, water, moisture, direct sunlight. The unit is not waterproof, so consider very carefully – especially whilst in use. It does contain a rechargeable lithium battery, so only use the USB cable supplied.

Product Care Advice: AR 8 Pro
Prior to conducting cleaning, remove the battery.

- **Using a soft dry cloth (with no solutions), clean the outer shell of the camera.**
- **The lenses – use an incredibly soft, lint-free cloth, (again no solutions) gently press on the lenses. Clean microfibre type clothes are great for this! By pressing gently on the lenses this avoids any scratches.**
- **Once cleaned and with the battery back in, you can either use a protective case or the box for safe storage, again keeping it away from dust and moisture. The batteries can be in the unit whilst stored as long as the storage is not for an extended period of time.**
- **Regularly clean the camera to keep it dust free and in perfect working condition.**
- **As part of maintenance, don't forget to charge the battery!**

Problem	Solution
Device power off	Check the battery is installed properly (and is the correct way round), if battery is low – charge the batter
Camera stuck, or has no reaction	A forced 'off' can be activated by a long press of the IR button then a light press on the power button, alternately a double press for a quick reset. The last method of reset uses the reset pin in the reset hole to turn the camera off and restart it afterwards.
Poor picture quality	For daytime use, ensure the IR light is off (if on the screen will appear in black/white, if off the screen will be colour). At night, in dim light ensure the IR light is on. The focus wheel can be used to adjust focus.

The NPTA bids a fond Farewell to our Technical Manager John Hope.

John has been a part of the NPTA family since 16th July 2018 he has been pivotal in providing the NPTA membership with training and quality technical support and guidance throughout his time with us.

John has decided to venture out on his own to form his own business connected with the pest control industry. The NPTA wish John every success in this new chapter in his life, John will not be a stranger going forward as you may see him around at future events and training.

Thank you John and all the very best from all at the NPTA

The NPTA wish to congratulate David French from 5 Star Pest Control who is General Manager and Company Biologist, he has recently been elected as a Fellow of the Royal Society of Public Health.

A fellowship is awarded to individuals who can demonstrate a career commitment to the improvement of Public Health / Wellbeing and have achieved qualifications to Post Graduate, or similar, through academic or industry bodies. 5 Star Pest Control were formed in 2009 by David, having previously been the General Manager of Hillbans Pest Control, where he played a key role in their development, before building his own successful company. David has been operating 5 Star Pest Control since 2009 and employs one other person, (Adam) who he took on with no previous pest control experience. Adam has since passed his RSPH 2 and is now an integral part of 5 star pest control set up.

David says, 'I am especially proud to have been elected, as a fellow of this prestigious body'. It represents the highpoint in a career dedicated to pest control on the Isle of Wight. Here at the NPTA, we are always proud of the good work all of our members do in protecting public health and it is great to see that one of our members has been officially recognised as doing just that. Well done David.

BPCA

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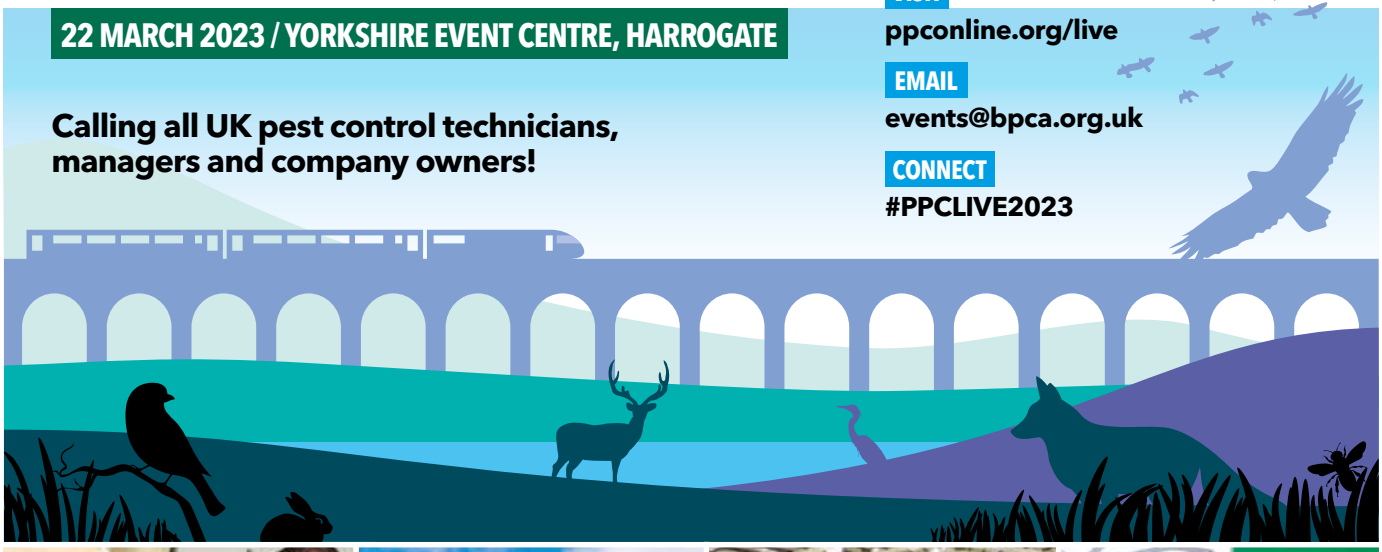

SNEAK PREVIEW

HOW-TO SESSIONS

Get hands on with pest management equipment. Learn by rolling your sleeve up and getting involved.

Practical application equipment for surface spray treatments
Avril Turner, Killgerm

The literal ins and outs of bird netting
Elaine Bliss, PestFix

Set up digital pest management
Gary Nicholas, Envu

INDOOR SEMINAR THEATRE

Learn from real pest experts in our 100-seat theatre.

Bed bugs in 2023
Richard and Alexia Naylor, Bed Bug Foundation

Accreditation standards: meeting food industry specifications
Grahame Turner, PestAcuity and Dee Ward-Thompson, BPCA

Invasive species: upcoming threats, a new strategy and inspectorate
Niall Moore and Iain Henderson, Non-Native Species Secretariat and Non-Native Species Inspectorate

Root cause analysis for pest professionals
Alex Wade, Wade Environmental and John Horsley, BPCA

Non-chemical rodent control
Sharon Hughes, BASF

OUTDOOR DEMONSTRATIONS

Get outside practical demonstrations of pest management ideas in our 65-seat outside the theatre.

Environmental risk assessments in action
John Horsley and Natalie Bungay, BPCA

Old meets new: traditional tools for modern rural pest management
Simon Whitehead

Bio-acoustics for bird management: why it works and why it doesn't
Peter Bowers-Davis, Integrum Services

FORUM SESSIONS

Get involved in the big debates in pest management right now.

Topics include:

The future of qualifications: is the Level 2 Award in Pest Management dead?

Diversity: is pest control just for men?

Technical: is resistance our biggest challenge in 2023?

Products: do we need rodenticides?

Regulations: should we be licensed to practice pest control?

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Have you heard of the "McDonald's coffee" personal injury case? (Or "hot coffee lawsuit" as it's sometimes known?)

This was a 1992 American legal case in which a McDonald's customer named Stella Liebeck spilt coffee on herself and then sued the fast food chain for damages. It was widely publicised and gained notoriety as an example of frivolous litigation – the notion that the USA was a country where unscrupulous lawyers worked with cranks, time-wasters and entitled consumers to squeeze money out of businesses.

The hot coffee case was dubbed "the poster child of excessive lawsuits" by ABC News and was well-known enough to be parodied in an episode of Seinfeld. And in 2017, it spawned an HBO documentary named Hot Coffee. But is it fair to see Liebeck and her lawyer as "jackpot justice-oriented", or was this a case where personal injury was given the gravity it deserved? Take a look at what unfolded and see what you think.

The myths and reality of the case

This case has passed into mainstream knowledge but, in the process, some of the details have become distorted. A common version of the story goes like this. A woman bought a cup of coffee from a branch of McDonald's and spilt it on her lap while driving. Rather than taking the blame for this mishap, she pinned responsibility on McDonald's – who, after all, had done nothing more than serve her a cup of coffee. She saw dollar signs and decided to squeeze the corporation for damages. Off the back of this trivial and trumped-up case, she won a million dollars.

The established version of events paints a very different picture. This is not only because the commonly told version distorts a number of details. It's also because the established version leads us to a different conclusion. Rather than this being a case of an entitled consumer playing the blame game, it suggests that this was a valid personal injury claim made by someone who had suffered because of someone else's actions.

The official narrative is as follows. 79-year-old Stella Liebeck ordered a cup of coffee from a McDonald's drive-through. Contrary to popular belief, she wasn't driving but was in the passenger seat with her grandson at the wheel. He had parked up so his grandmother could add cream and sugar to her coffee. When she took the lid off, the whole cup of coffee spilt on her lap. She was wearing cotton tracksuit bottoms that soaked up the coffee.

At this point in the story, you might still think that Liebeck was suing McDonald's as a money-spinner. In what way was McDonald's to blame for a customer clumsily taking off a coffee cup lid? Things become clearer when you learn that Liebeck suffered full-thickness (or "third-degree") burns around her pelvis. These are burns that won't heal without medical attention, so Liebeck was taken to hospital. She was there for eight days and underwent skin grafting. Once discharged, she was looked after by her daughter for three weeks. Liebeck was permanently disfigured by the spill and was partially disabled for two years.

The purpose of Liebeck's lawsuit was to get McDonald's to cover her medical expenses – not, as is commonly thought, to make a quick buck. Her requested settlement of $20,000 was refused. Following this refusal, her lawyers decided to bring a claim of gross negligence against McDonald's. Even if you're now feeling sympathetic towards Liebeck on account of her injury, you might still think it's a bit rich to pin the blame on McDonald's.

The key piece of information here is that the coffee was hot enough to send her to hospital and cause disfigurement. This wasn't a burn that could be treated with a damp cloth and a dose of paracetamol – it was one that caused physical pain and emotional turbulence. Liebeck's lawyers centred their argument on the temperature of McDonald's coffee, which was served at 82-88 °C – not just at the drive-through visited by Liebeck, but in all its chains as a matter of course. This, they argued, was hotter than coffee at other chain restaurants. What's more, over 700 people had complained to McDonald's after being scalded by its coffee.

Given that the coffee was unusually hot and led to Liebeck being hospitalised, her lawyers argued that McDonald's should take the lion's share of responsibility. The jury decided that McDonald's was 80% responsible for Liebeck's injury. And as for the million dollars she pocketed – she was in fact awarded $640,000 in damages. According to Liebeck's daughter, these damages were used to pay for a live-in nurse. She also said that her mother had "no quality of life" after the double punch of the accident and the subsequent court case. Whatever you think about the jury's verdict and the details of the settlement, it's clear that there's more to this story than pure greed and manipulation of the legal system.

The moral of the story?

As we mentioned at the top, the Liebeck case became a byword for frivolous litigation. In ABC News's article, it keeps company with lawsuits like the so-called "$54 million pants" case and a woman suing an open-air mall after receiving unwanted attention from a squirrel. But when you take into account the severity of Liebeck's injuries and the restaurant chain's practice of serving scaldingly hot coffee, the case can be seen instead as an example of the US justice system giving a personal injury claim the gravity it deserved.

Here at Milners, we have a proven track record in winning compensation for personal injury claims on a 'no win, no fee' basis. These have ranged from workplace accidents to industrial diseases, from whiplash to clinical negligence. We pride ourselves on being plain-speaking, no-nonsense and approachable. If you're looking for representation, please reach out to Giles Ward on 0113 245 0852 or email: giles.ward@milnerslaw.com.

Killgerm TRAINING

2023 Training Dates

Your guide to pest control training events near you

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Details of all course dates and locations are available online at: **www.killgerm.com/pest-control-training-calendar**
There is also a full list in the Killgerm catalogue.
For further information or to book your place on a course call: 01924 268445 or email training@killgerm.com.

NORTHERN COURSES 2023

Date	Venue	Cost plus VAT
BASIC PRINCIPLES OF PEST CONTROL		
Killgerm Principles of Rodent Control		
10th Jan 2023	Ossett	* £125/£155
14th Feb 2023	Ossett	* £125/£155
7th March 2023	Ossett	* £125/£155
4th April 2023	Ossett	* £125/£155
9th May 2023	Ossett	* £125/£155
Killgerm Principles of Insect Control		
11th & 12th Jan 2023	Ossett	* £180/£210
5th & 6th April 2023	Ossett	* £180/£210
REFRESHER COURSES		
Pest Control Refresher/Update		
2nd March 2023	Kendal	* £55/£155
4th May 2023	Ossett	* £55/£155
SPECIALIST COURSES		
Safe use of Air Weapons for Bird Control		
14th March 2023	Holmes Chapel	£190 Inc lunch
25th April 2023	Doncaster	£190 Inc lunch
23rd May 2023	Holmes Chapel	£190 Inc lunch
Bird Control		
11th & 12th September 2023	Holmes Chapel	£270 Inc lunch
Bird Free		
24th May 2023	Ossett	£120 Inc lunch
Insect Identification		
18th May 2023	Ossett	£190 Inc lunch
Drainage Investigations & Rat Control		
29th March 2023	Ossett	£190 Inc lunch
Flying Insect Management		
9th March 2023	Ossett	£155 Inc lunch
INSECT WORKSHOPS		
Insect Workshop 1 - Bedbugs & Fleas		
16th May 2023	Ossett	£155 Inc lunch
Insect Workshop 2 - Ants, Bees and Wasps		
21st March 2023	Ossett	£155 Inc lunch
PRACTICAL COURSES		
Trapping Techniques		
30th March 2023	Killamarsh	£155 Inc lunch

Course Charges
* Reduced rate applies to existing Killgerm customers who have reached a set minimum annual spend limit.

SOUTHERN COURSES 2023

Date	Venue	Cost plus VAT
EAST ANGLIA		
BASIC PRINCIPLES OF PEST CONTROL		
Killgerm Principles of Rodent Control		
14th March 2023	Norwich	* £125/£155
Killgerm Principles of Insect Control		
15th & 16th March 2023	Norwich	* £180/£210
REFRESHER COURSES		
Pest Control Refresher/Update		
4th April 2023	Norwich	* £55/£155
INSECT WORKSHOPS		
Insect Workshop 2 - Ants, Bees and Wasps		
5th April 2023	Norwich	£155 Inc lunch

Date	Venue	Cost plus VAT
SURREY		
BASIC PRINCIPLES OF PEST CONTROL		
Killgerm Principles of Rodent Control		
7th March 2023	Lingfield	* £125/£155
Killgerm Principles of Insect Control		
8th & 9th March 2023	Lingfield	* £180/£210
SPECIALIST COURSES		
Safe use of Air Weapons for Bird Control		
18th April 2023	Reading	£190 Inc lunch

Date	Venue	Cost plus VAT
BERKSHIRE & HAMPSHIRE		
BASIC PRINCIPLES OF PEST CONTROL		
Killgerm Principles of Rodent Control		
28th March 2023	Newbury	* £125/£155
30th May 2023	Newbury	* £125/£155
Killgerm Principles of Insect Control		
29th & 30th March 2023	Newbury	* £180/£210
SPECIALIST COURSES		
Flying Insect Management		
18th May 2023	Newbury	£155 Inc lunch
Drainage Investigations & Rat Control		
25th May 2023	Newbury	£190 Inc lunch
INSECT WORKSHOPS		
Insect Workshop 1 - Bedbugs & Fleas		
4th May 2023	Newbury	£155 Inc lunch
Insect Workshop 2 - Ants, Bees & Wasps		
3rd May 2023	Newbury	£155 Inc lunch

Date	Venue	Cost plus VAT
BRISTOL		
BASIC PRINCIPLES OF PEST CONTROL		
Killgerm Principles of Rodent Control		
17th Jan 2023	Bristol	* £125/£155
25th April 2023	Bristol	* £125/£155
Killgerm Principles of Insect Control		
18th & 19th Jan 2023	Bristol	* £180/£210
REFRESHER COURSES		
Pest Control Refresher/Update		
26th April 2023	Bristol	* £55/£155
SPECIALIST COURSES		
Drainage Investigations & Rat Control		
9th March 2023	Bristol	£190 Inc lunch

Date	Venue	Cost plus VAT
INSECT WORKSHOPS		
Insect Workshop 2 - Ants, Bees & Wasps		
24th May 2023	Bristol	£155 Inc lunch

Course Charges
* Reduced rate applies to existing Killgerm customers who have reached a set minimum annual spend limit.

Date	Venue	Cost plus VAT
MIDLANDS		
BASIC PRINCIPLES OF PEST CONTROL		
Killgerm Principles of Rodent Control		
14th March 2023	Burton on Trent	* £125/£155
Killgerm Principles of Insect Control		
15th & 16th March 2023	Burton on Trent	* £180/£210
SPECIALIST COURSES		
Safe use of Air Weapons for Bird Control		
26th April 2023	Kibworth	£190 Inc lunch
Flying Insect Management		
26th April 2023	Burton on Trent	£155 Inc lunch
Drainage Investigations & Rat Control		
16th Feb 2023	Burton on Trent	£190 Inc lunch
INSECT WORKSHOPS		
Insect Workshop 2 - Ants, Bees & Wasps		
27th April 2023	Burton on Trent	£155 Inc lunch

SCOTTISH COURSES 2023

Date	Venue	Cost plus VAT
BASIC PRINCIPLES OF PEST CONTROL		
Killgerm Principles of Rodent Control		
21st March 2023	Livingston	* £125/£155
16th May 2023	Livingston	* £125/£155
Killgerm Principles of Insect Control		
17th & 18th May 2023	Livingston	* £180/£210
REFRESHER COURSES		
Pest Control Refresher/Update		
20th April 2023	Livingston	* £55/£155
SPECIALIST COURSES		
Flying Insect Management		
25th May 2023	Livingston	£155 Inc lunch
INSECT WORKSHOPS		
Insect Workshop 1 - Bedbugs & Fleas		
10th May 2023	Livingston	£155 Inc lunch

Course Charges
* Reduced rate applies to existing Killgerm customers who have reached a set minimum annual spend limit.

ROYAL SOCIETY FOR PUBLIC HEALTH AND BRITISH PEST CONTROL ASSOCIATION - LEVEL 2 AWARD IN PEST MANAGEMENT
FEE - £900 + VAT per person (includes Killgerm manual, RSPH Exam, lunch & refreshments)

Venue: Ossett	
Unit 3	Monday 23rd & Tuesday 24th January 2023
Unit 1	Monday 30th & Tuesday 31st January 2023
Unit 2	Monday 6th & Tuesday 7th February 2023
Examination	Wednesday 8th February 2023
Venue: Ossett	
Units 1 to 3	Tuesday 13th to Tuesday 20th June 2023
Examination	Wednesday 21st June 2023
Venue: Ossett	
Unit 3	Monday 9th & Tuesday 10th October 2023
Unit 1	Monday 16th & Tuesday 17th October 2023
Unit 2	Monday 23rd & Tuesday 24th October 2023
Examination	Wednesday 25th October 2023

ROYAL SOCIETY FOR PUBLIC HEALTH LEVEL 3 AWARD IN PEST MANAGEMENT. FEE - £800 + VAT per person (includes RSPH Exam, lunch & refreshments)

Venue: TBC	
Training and Information day	
Core Unit examination	

ROYAL SOCIETY FOR PUBLIC HEALTH AND BRITISH PEST CONTROL ASSOCIATION - LEVEL 2 AWARD IN PEST MANAGEMENT
FEE - £900 + VAT per person (includes Killgerm manual, RSPH Exam, lunch & refreshments)

Newbury	
Unit 3	Monday 13th & Tuesday 14th February 2023
Unit 1	Monday 20th & Tuesday 21st February 2023
Unit 2	Monday 27th & Tuesday 28th Febuary 2023
Examination	Wednesday 1st March 2023
Reigate	
Unit 3	Monday 30th & Tuesday 31st October 2023
Unit 1	Monday 6th & Tuesday 7th November 2023
Unit 2	Monday 13th & Tuesday 14th November 2023
Examination	Wednesday 15th November 2023

ROYAL SOCIETY FOR PUBLIC HEALTH LEVEL 3 AWARD IN PEST MANAGEMENT. FEE - £800 + VAT per person (includes RSPH Exam, lunch & refreshments)

Venue: TBC	
Training and Information day	
Core Unit examination	

ROYAL SOCIETY FOR PUBLIC HEALTH AND BRITISH PEST CONTROL ASSOCIATION - LEVEL 2 AWARD IN PEST MANAGEMENT
FEE - £900 + VAT per person (includes Killgerm manual, RSPH Exam, lunch & refreshments)

Livingston	
Unit 3	Tuesday 12th & Wednesday 13th September 2023
Unit 1	Tuesday 19th & Wednesday 20th September 2023
Unit 2	Tuesday 26th & Wednesday 27th September 2023
Examination	Thursday 28th September 2023

Note this lists only the 1st quarter of course dates. Please visit our website for the full range of training courses:

https://www.killgerm.com/technical/

Some courses remain available online: **https://training.killgerm.com**

Killgerm Breakfast MEETINGS

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