March 2021

PCN

PEST CONTROL NEWS®

THE MAGAZINE FOR THE PEST CONTROL INDUSTRY

125 issue

Protecting non-target species 6

The issue of widespread and significant contamination of wildlife, with second generation anticoagulant rodenticide (SGAR) residues, is arguably the biggest challenge faced by rodenticide users.

Bayer Digital Pest Management 12

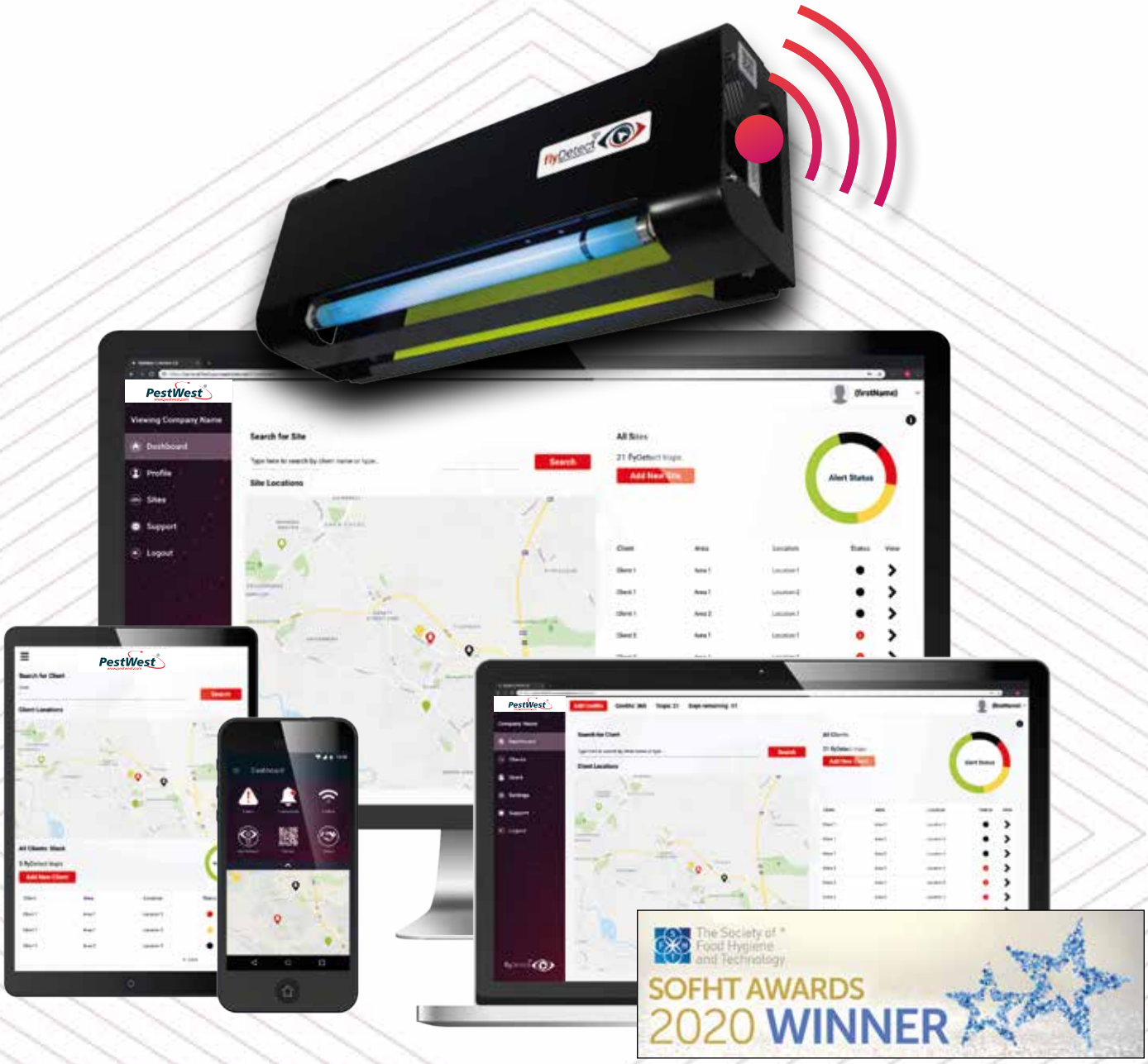
Bayer have collaborated with leading technology company Microsoft to develop a new Digital Pest Management system, which provides 24/7 monitoring and real-time capture alerts.

Selontra® in action 20

Tim Bloomer of Killgerm conducted his own trial on a live rat infestation at a sheep farm in the Cotswolds.

PestWest®

www.pestwest.com



Flying insect control meets remote monitoring

Remote monitoring | Built in high-resolution camera | No more wasted callouts

CAPTURE NOTIFY REACT

flyDetect®
IPM Online Monitoring System

Confidence in **Fly Control**

issue 125

PCN
PEST CONTROL NEWS®

Bitesize...

Protecting non targets: species specific delivery of rodenticides 6

The issue of widespread and significant contamination of wildlife, with second generation anticoagulant rodenticide (SGAR) residues, is arguably the biggest challenge faced by rodenticide users.

Virtual events - is this the future? 8

Connecting with people in the industry is still very important and events need to be adapted to continue to bring people together.

New general licences for the control of wild birds 10

Defra published three new general licences for the control of wild birds, which came into force on 1 January 2021.

Bayer Digital Pest Management 12

Bayer have collaborated with leading technology company Microsoft to develop a new Digital Pest Management system, which provides 24/7 monitoring and real-time capture alerts allowing pest controllers to tackle rodents in a more efficient manner.

State of the UK barn owl population - 2019 16

'A relatively good year in many areas.' Results from 40 independent groups collated by the Barn Owl Trust.

Alphachloralose mode of action 17

Alphachloralose does not act in the same way as anticoagulant rodenticides. So how does it work as a rodenticide?

Your industry needs you! 19

BASIS PROMPT is calling for its members to sign up to its new online search tool, PROMPT Verified, in order to help demonstrate professionalism in the industry.

Selontra® in action 20

Tim Bloomer of Killgerm conducted his own trial on a live rat infestation at a sheep farm in the Cotswolds.

FICAM® W: A second look at alternatives 22

The last date, 10th December 2020, for storage, use and disposal of Ficam® W has finally passed. It is time, therefore, to take a further look at alternatives.

Vecotech launches novel bedbug pheromone-based lure backed by scientific research 26

Vecotech Ltd is pleased to announce the launch of BugScents™, a novel pheromone-based bed bug lure with unique patented technology, for use in detecting early-stage bed bug infestations.

Keep up-to-date with your professional development

All Pest Control News readers can now receive two BASIS PROMPT CPD points per calendar year. All you need to do to claim these points is include PCN on your annual BASIS PROMPT record using the following code:

PC/94799/20/g

For further information on the BASIS PROMPT scheme or to register, please visit:

www.basis-reg.co.uk

Please address any of the above to:

Pest Control News Limited, Wakefield Road, Ossett, West Yorkshire WF5 9AJ.

tel: 01924 268400

e-mail:

editor@pestcontrolnews.com

technical@pestcontrolnews.com

Rodent control and wild bird control (proofing) highlighted as biosecurity measures in avian flu outbreaks

The Defra document 'Biosecurity and preventing welfare impacts in poultry and captive birds. Advice for all captive bird and poultry keepers (including game birds, waterfowl, and pet birds), published 14th December 2020, highlights the importance of rodent control and wild bird proofing in avian flu outbreaks.

www.pestcontrolnews.com/news

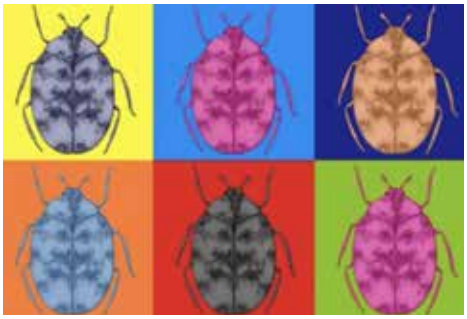
We say goodbye to two long standing industry professionals

We are saddened to hear of the death of two former Killgerm colleagues Tony O'Dowd and Maureen O'Shea.

Tony O'Dowd worked for Killgerm for 25 years as an Area Sales Manager and retired in 2015. Tony was the life and soul of the party and loved to have a pint of Guinness and a song!

Maureen O'Shea worked for Killgerm for 33 years and was instrumental in the creation of the Killgerm Technical Department in her role of Technical Director and Consultant Entomologist. Maureen retired in 2015.

www.pestcontrolnews.com/news



Call for "poster" abstracts: Pest Odyssey 2021 – the Next Generation

This will be a fully virtual conference, 20th - 22nd September 2021 and will enable participants to focus on changes and new developments in IPM over the last ten years.

Submissions are invited for "posters" to be presented at the third Pest Odyssey Conference.

As this will be an entirely virtual conference, "posters" will be Pecha kuccha style 5-minute presentations (5 slides in 5 minutes), rather than the traditional poster format. We invite contributions looking at the conference themes of science, sustainability and climate change in relation to IPM. Additionally, "posters" examining how to carry out IPM well and what a successful IPM programme looks like over 10+ years, as well as those discussing methods of advocacy and successful ways to share the IPM message both in your organisation and the wider world would be welcomed.

We hope that this format will encourage first-time or nervous presenters to contribute and they will be especially welcome.

Abstracts should be a maximum of 200 words and should be submitted as a Word document to pestodysseyuk@gmail.com by 12AM (midnight) GMT on March 14th 2021.

www.pestcontrolnews.com/news

PCN Junior will be back this spring!

Keep an eye out for the next edition of PCN Junior, which will be arriving in spring's issue of PCN. Included will be new baking recipes, more facts about our favourite spring pests and exciting new quizzes.

www.pestcontrolnews.com/news

Bayer appoints new sales manager to lead Digital Pest Management

Bayer ES has appointed a new sales manager, Gary Nicholas, to lead the latest offering to the pest control sector, Digital Pest Management. Starting his career as a trainee technician for a pest control company in Lancashire, Gary has been involved in the industry for many years and therefore understands the needs of pest control operators (PCOs).

www.pestcontrolnews.com/news

Updated RRAG guidance released

The Rodenticide Resistance Action Group (RRAG) has published updated versions of their rat and mouse resistance guidelines here: bpca.org.uk/rrag

A key addition is inclusion of the non-anticoagulant cholecalciferol and its role in resistance management.

Further additions include consideration of new resistance data such as 'hybrid resistance', updated information on the distribution of resistance, and a useful appendix that classifies active ingredients for resistance management.

www.pestcontrolnews.com/news

pestex.org

BPCA

PestExtra

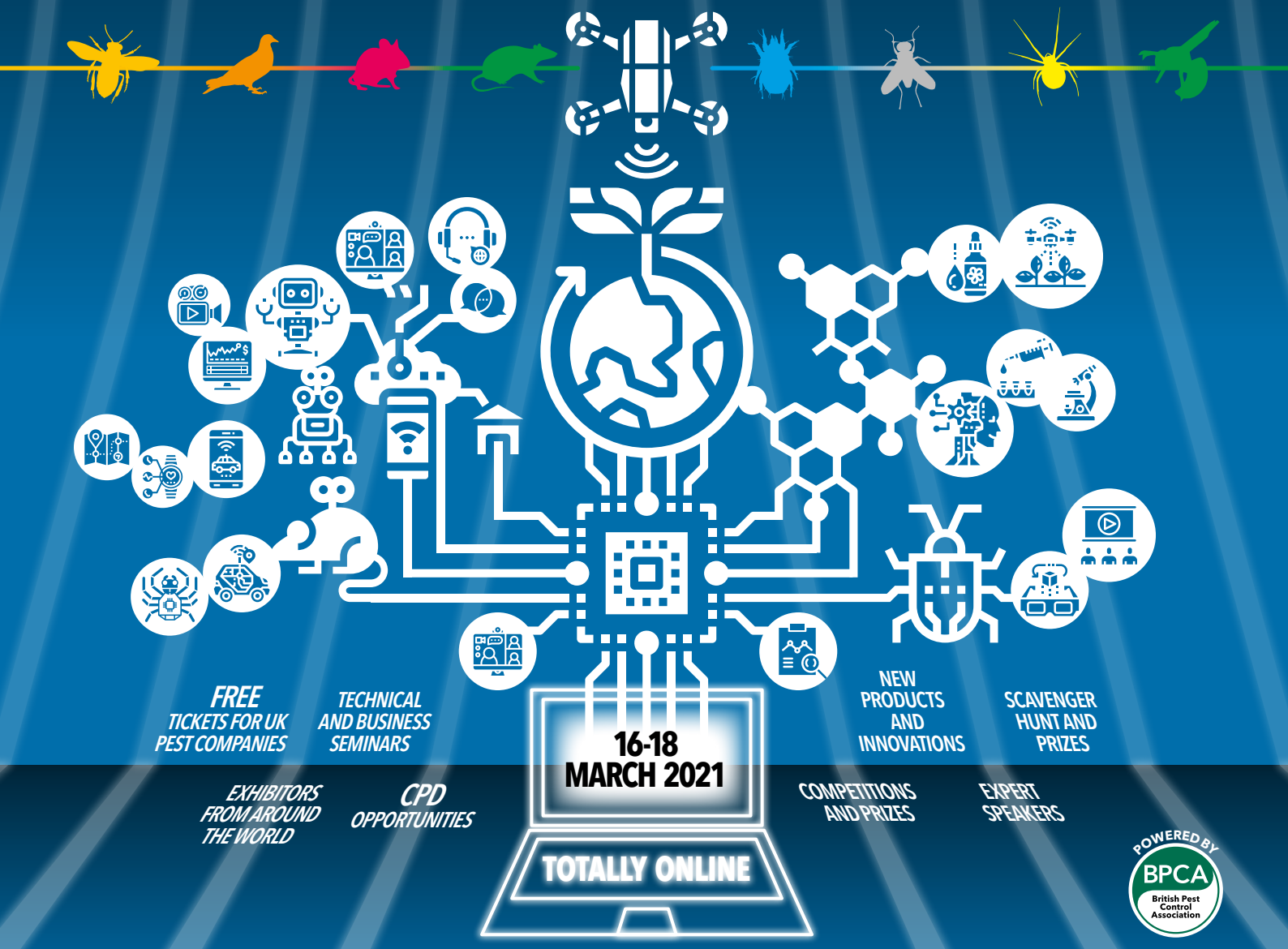
16-18 MARCH 2021

The pest management show online

Discover the latest pest control science, technology and innovation

protect with tech

at the UK's online trade show and conference for pest management



FREE TICKETS FOR UK PEST COMPANIES

TECHNICAL AND BUSINESS SEMINARS

NEW PRODUCTS AND INNOVATIONS

SCAVENGER HUNT AND PRIZES

EXHIBITORS FROM AROUND THE WORLD

CPD OPPORTUNITIES

COMPETITIONS AND PRIZES

EXPERT SPEAKERS

POWERED BY BPCA British Pest Control Association

Protecting non-targets: species-specific delivery of rodenticides

The issue of widespread and significant contamination of wildlife, with second generation anticoagulant rodenticide (SGAR) residues, is arguably the biggest challenge faced by rodenticide users.

SGAR residues in Barn Owls are not decreasing and a major review, by the UK Government Oversight Group (GOG), of the Campaign for Responsible Rodenticide Use (CRRU)-led rodenticide stewardship regime is planned for spring 2021. There is much to consider and any new developments that could likely assist stewardship aims would be welcomed by Pest Control News.

It is known that small non-target mammals such as bank voles (*Myodes glareolus*) and wood/field mice (*Apodemus sylvaticus*) enter external bait stations intended for Norway rat (*Rattus norvegicus*) control. It is also known that these small mammals consume SGARs and are taken by birds of prey, such as barn owls and kestrels, which is a route of contamination.

While an automated bait station system exists, that opens to allow target rodent entry after being triggered three times, it is not available to all users.

A bait station precluding entry by bank voles and wood mice, while still allowing access by Norway rats, that is also affordable and available to all sounds like a pipe dream. In fact, it is a pipe dream! Pest Control News can now report that the 'rat up a drainpipe', to coin an early developmental-stage name, is available and works in exactly that way – rats enter and exit via two elevated 'pipes' / tubes which wood mice (and house mice) and bank voles cannot access. The beauty is in the sheer simplicity and practicality. The inventor must have had a 'eureka' moment!

A reminder about contamination of wildlife with SGARs – and a new route

Before delving into the detail, of this potentially game-changing bait station, a reminder of why we need to protect non-target species is important. SGAR residues in barn owls are still a cause for concern, despite stewardship efforts, with 87% of barn owls contaminated by one or more SGARs. This is detailed in the UK Centre for Ecology and Hydrology report 'second generation anticoagulant rodenticide residues in barn owls 2019'.

An independent study, by the Dutch KAD (Kennis- en Adviescentrum Dierplagen) in 2014, investigated target and non-target visitors to rodenticide bait stations. Wood mice, voles, shrews, unidentified mice, birds, stoat, cat, amphibians, invertebrates and plenty of slugs and snails were recorded. This information brings us to discuss a perhaps underappreciated route of wildlife contamination. Experienced pest controllers have long been frustrated by slug and snail damage to rodenticide in external bait stations. The economic cost in terms of lost bait and labour time is noted. There is a more concerning aspect to this which is not widely appreciated.

Slugs and snails that consume SGARs can be taken by small songbirds (Alomar et. al., 2018) and hedgehogs (Dowding et. al., 2009). SGAR contamination of hedgehogs has been document in such peer-reviewed scientific papers and is a concern. It has been calculated that this pathway could lead to lethal contamination of hedgehogs.

Small songbirds that consume slugs and snails, such as starlings, are taken by birds of prey e.g., sparrowhawks. CEH studies show that 93% of sparrowhawks are contaminated with one or more SGARs (CEH, 2012). 'How can I stop slugs and snails damaging the bait' is a frequently asked question by pest controllers but with, until now, no satisfactory solution. A bait station that allows entry by rats but not slugs and snails is the answer and we now have it. The economic savings and reduction of risk to wildlife are two clear reasons to consider this option.

Environmental Risk Assessment – a duty to minimise risk to wildlife

As trained professionals, are well-aware, an environmental risk assessment (ERA) is a requirement when applying professional-use rodenticides outside. We have a clear duty to minimise risk to wildlife in undertaking such work. In fact, the ERA guidance states '…alleviate the problems caused by rodents at the site most efficiently and with the least risk to non-target animals, such as wildlife.' Furthermore, 'protect the bait from access by non-target species as far as practicable.' By failing to use a bait station, affordable and available to all, which prevents entry of certain non-target species are you really following a sufficient environmental risk assessment?

Species-specific delivery of rodenticides

The new tamper-resistant and species-specific bait station has two 'tube' entrances that Norway rats can climb up. Placement at the correct height is critical to allow this and to prohibit entry by wood mice and bank voles.

It needs to be fixed at between 3.5 and 4 inches (approximately 90mm -100mm) off the floor – critical to do so!

In testing there was no evidence of wood mouse or bank voles, that were already noted to be present in the vicinity, entering the box. This was based on visual inspection, lack of signs such as droppings and feeding activity, also wildlife / remote camera footage.

Similar observations were made regarding slug and snail entry – no evidence of this occurring during testing.

How was the bait station tested / trialled?

The bait station was placed among rodent colonies, at an independent test facility, to determine that rats could enter the station and remain inside to feed. Observations included rats entering the bait station, within an hour of encountering it, then taking food quickly and eating it away from the bait station. In some cases, rats were entering the bait station within minutes – presumably due to a natural curiosity regarding the tubes. Wild house mice and behaviourally altered house mice, at the same independent facility, were unable to enter the bait station via the tubes of the designed width when set at the correct height.

The bait station was also used, in practical settings, and observed by highly experienced pest controllers with the added benefit of camera footage. A particularly interesting and challenging site was a farm. Visual inspections / surveys, including signs such as droppings and feeding activity, combined with wildlife / remote camera footage indicating different species present. Norway rat activity was confirmed along with wood mouse, bank vole, mink and shrew activity. Norway rats entered the bait station, consuming readily the 'baits' (field tests in this case used apple, pear, carrots, sultanas and peanut butter that the rats ate in situ), while none of the identified non-target species entered the bait station throughout the duration of the work. Interestingly, rats were observed to enter via one tube and leave by the other.

The new bait stations were also sited at a further farm. They were placed externally, to the rear of a grain silo, where rat activity had been observed. Wood mice, stoats and ground feeding birds were also present at this site. The new stations were 'baited' with crushed dog food mixed with sunflower oil. Standard bait stations were baited with the same attractant and placed in the vicinity.

The bait stations were checked, daily, for activity and left on site for a period of three weeks. Interaction was noted, in under 24 hours, for both the species-specific station and the standard rat bait station. Standard rat bait stations were visited mainly by rats with one showing signs of wood mouse activity. The species-specific bait station was only interacted with by rats. Evidence of slugs and snails was noted, over the three-week period, in and around standard rat bait stations. No evidence of slug or snail activity was recorded in the species-specific station.

Trapping

Remote monitor traps were then placed in the species-specific and standard bait stations in the area. They were baited with the same crushed dog food/sunflower oil attractant. The remote traps were TrapSensor and Xignal.

Rats interacted with, and were captured by, all bait stations. The first capture was recorded in one of the standard bait stations with a rat being trapped in a species-specific bait station, on the same day, three hours later. The trapping procedure continued over a period of several days. Both types of station continued to capture rats in similar numbers. Evidence of wood mice was noted, on two occasions, in the standard rat bait stations but never in the species-specific stations.

Product baiting

The species-specific stations and standard bait stations were baited with a palatable wax bait-base product. Both types of station had complete takes of bait, by rats, over a period of 28 days.

Evidence of both wood mouse and slug activity, during this time, was noted in and around the standard rat bait stations. The species-specific bait stations, during the same period, were not interacted with by any non-target species with only rats visiting and feeding from such stations.

Conclusion

Of course, the fact that certain non-target species were unable to enter the new bait stations needs to be approached with a small amount of caution. This was the case in the conditions of the trials: pen trials, semi-field and field conditions and depended on the correct siting of the bait station by experienced and trained users. A more cautious description is perhaps the following:

- Reduces risk of non-target species entrance
- Allows rodenticides to be used, with lower risk, in all suitable areas
- Reduces risk when using traps
- Reduces the risk of slug and snail damage to rodenticides

What the use of this bait station does *not* mean is that an environmental risk assessment is not needed or that careful selection of rodenticides (think 'risk hierarchy') is not required – remember that the target species, Norway rats, are still taken by birds of prey such as red kites!

What the use of this bait station *does* mean is that we can improve our level of best practice, in delivering responsible and effective use of rodenticides, while minimising impacts on non-target wildlife.

Watch the AF® Amicus video here:

Virtual events- is this the future?

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

In a world completely changed by COVID-19, many companies that hold regular events and exhibitions have found themselves having to find new ways to continue to provide this service for their customers. Connecting with people in the industry is still very important and events need to be adapted to continue to bring people together. During the pandemic virtual events are quickly becoming the norm.

PCN

You may be thinking 'how can a virtual event compare to the real-life version?' Virtual events may seem like a challenging prospect for the unfamiliar host and visitor alike. In the midst of a global pandemic this is the safest way for businesses to keep some semblance of normality to their normal events calendars. In this article we take a look at the benefits of virtual events and the likelihood that they will be here to stay.

Although we have had virtual exhibitions held abroad, PestWorld and FAOPMA for instance, BPCA will be kicking us off next month with the first virtual exhibition in the 2021 calendar. PestExtra is their online show and is taking place on 16-18th March. You can learn more about what to expect at PestExtra on page 32, but it promises the traditional sights of a packed seminar schedule, a vast virtual exhibition hall and the opportunity to win prizes.

Now that we know what we are dealing with, lets take a look at the benefits of attending a virtual event:

Ease of attendance

Distance and time-commitments are often barriers for many when it comes to attending events as an exhibition usually takes you away from your normal daily tasks for at least a day – it could be more if you are travelling. You may also have had the difficult decision to make about which staff can attend, as work goes on.

Virtual events are much easier to attend because there is no travel involved – particularly if you usually travel internationally. There are no travel expenses, space constraints or staff number requirements. You can have as many staff attend as you would like. Come one, come all, from the comfort of a laptop or smartphone!

Expense

Covering distance and allocating time to attend an exhibition is all well and good, but these things come at a cost. Real life exhibitions can be costly to attend, for both exhibitors and attendees. Travel, hotel bills, eating out and after show drinks can all ramp up the expenses. While the social side of a virtual exhibition may be much less than a real-life one, it certainly keeps the bank manager happy.

Product demonstrations

Being able to see products in action is a popular reason to attend an exhibition. While this is not quite possible in exactly the same way, it can still be done. Virtual demo halls can be set up where product demonstrations and presentations can be live streamed. You can still hear directly from the supplier about how you can implement these new products or services into your business.

Networking

While face-to-face networking will always build important relationships, a certain proportion of this can also be done virtually. Virtual events allow attendees to create their own online profile, interact in event-wide group chats, engage in conversations with other participants – all things that some people may struggle to do in person.

Some attendees may feel they can ask questions uninhibitedly, without clock watching in case they miss a seminar or speaker.

If you are someone that always forgets something, like your business cards – don't worry! Electronic business cards can be swapped with just a click of a button, as all of your information is saved on your online profile.

Location, location, location

One of the many benefits to suppliers is that they aren't constrained by location. Testing out a new country or territory may be overwhelming and expensive to handle in person. Virtual events mean that suppliers can effectively 'dip their toe in the water' to test the market and attendees can see products that may not normally see, from a larger pool of suppliers.

Accessibility

Exhibitions can be busy, loud and are held in all kinds of venues, meaning they may not always be accessible to everyone. At virtual events you can cover a lot more ground in less time and you don't need to leave your desk! At a real-life event it can be difficult to see everything and everyone in the time you have allowed and there is usually something you miss. You may realise you've forgotten to visit a certain exhibitor, but it's easy to log back into the event from your smartphone or computer and catch up.

Eco-friendly

While we have considered the financial costs of a real-life event, we cannot forget about the environmental costs as well. Virtual events are not just eco-friendlier, they:

- Are more sustainable
- Eliminate the need for travel/transport
- Require significantly less resources
- Have no large spaces to light and heat
- Create no waste

These points, especially the latter, can only be a good thing as exhibitions are notorious for the amount of waste they produce!

Without the need for printed show guides, lanyards or signage, display boards, brochures or printed marketing material the environmental cost is substantially less.

Conclusion

While traditional events are unlikely to take a back seat when the pandemic is over, virtual events will be more than likely be here to stay. With arguments for and against both it will come down to personal preference and what is right for the individual business.

We'd love to hear your views on virtual events, email editor@pestcontrolnews.com or follow Pest Control News on social media to let us know what you think.

New general licences for the control of wild birds

New general licences came into force from 1st January 2021.

Defra published three new general licences for the control of wild birds, which came into force on 1st January 2021.

This follows the completion of Defra's review and user survey into general licensing, details of which will be published at a later date.

The new licences (GL40, GL41, GL42) replaced the previous general licences (GL34, GL35 and GL36) which expired on the 31st December 2020. From 1st January 2021, licence users need to act in accordance with the new licence conditions.

General licences are permissive licences, meaning that users do not need to apply for them, but they must comply with their terms and conditions, when undertaking licensed acts. They allow users to kill or take certain species of wild birds for defined purposes such as preventing serious damage to certain commodities such as livestock and crops, for the purposes of conserving wild birds, plants and animals, or for public health and safety reasons.

Following the review:

- The licences more clearly define the birds that can be controlled for certain purposes. For example, jackdaws and rooks will no longer be able to be controlled for conservation purposes because the evidence does not demonstrate that predation has a population-level effect on wild birds.
- It is now a licence condition that the requirements of GL33 'Trapping wild birds: standard licence conditions' must be complied with to ensure the welfare of trapped birds in line with agreed standards.
- Improvements have been made to the usability and readability of the licences.

The new general licences are once again available for use on and around protected sites, provided that the user complies with any conditions that apply to that site and has consent from Natural England where needed.

Environment Secretary George Eustice said:
We have undertaken an extensive process to review the scientific evidence as well as over 4,000 responses to our general licence user survey, to help ensure we have a long-term licensing system which balances the needs of users and our wildlife.

We have taken on feedback to help ensure these new licences are fit for purpose, and will continue to work with stakeholders to ensure our licensing process is robust for wildlife and workable for users going forward.

The 3 new general licences are in effect from 1st January 2021, for one year.

Where species can no longer be controlled under the General Licence for certain purposes, an individual licence will be needed from Natural England. These species have been removed because of lack of evidence of widespread need and so an individual licence application will require specific evidence of need, proportionality and whether alternatives have been considered.

The three new general licences are:

- **WML GL40: general licence to kill or take certain species of wild birds to conserve endangered wild birds and flora or fauna**. Species covered: carrion crow, jay, magpie, Canada goose, Egyptian goose, monk parakeet, ring-necked parakeet, sacred ibis, Indian house-crow.
- **WML GL41: general licence to kill or take certain species of wild birds to preserve public health or public safety**. Species covered: jackdaw, feral pigeon, Canada goose, monk parakeet.
- **WML GL42: general licence to kill or take certain species of wild birds to prevent serious damage and prevent the spread of disease**. Species covered: carrion crow, jackdaw, magpie, feral pigeon, rook, woodpigeon, Canada Goose, monk parakeet, ring-necked parakeet, Egyptian goose, Indian House crow.

If you have further questions, you can contact the Defra enquiry line at 03459 33 55 77 or email: GLenquiries@defra.gov.uk.

First ever ICUP webinar to be held on 9th March 2021

The International Conference on Urban Pests (ICUP) is to hold its first free-of-charge on-line webinar on 9th March 2021.

The webinar will consist of a series of presentations by leading scientists on a range of stimulating urban pest topics, with an opportunity for a questions and answers session with the speakers.

It will take place on 9th March 2021, starting at 15.00 Greenwich Mean Time, and will last for no more than three hours. For those who are unable to attend the live event, recordings of the presentations will also be available for viewing later.

Full details of the programme and the registration process will be posted and regularly updated on the ICUP website here.

Until 2020, the ICUP events consisted of a conventional conference, held every three years. However, with the global COVID-19 pandemic, such conferences are not currently possible, and the tenth conference which was due to be held in Barcelona, Spain, had to be postponed.

These are unprecedented times, and the ICUP is adapting to the current challenges in order to continue to serve our community. The Executive Committee looks forward to seeing you once again on 9th March, and in the meantime wishes everyone well in these challenging times.

BRCGS Issue 4:
Storage & Distribution

The British Retail Consortium Global Standards have recently updated their storage and distribution standard with the release of issue 4. The specification, dated November 2020, will be audited against from 1st May 2021. As always BRC have a certain time-lapse, after release of the specification, before it will be audited against. It has been a while since the previous incarnation (Issue 3 was published in 2016) of the storage and distribution spec. An update was perfectly warranted, to keep up with industry changes, in all aspects of how this standard can be applied. Having attended the webinar on the changes, reviewing the guidance document 'Guide to Key Changes' released by BRCGS, it is time to update PCN readers.

Background

This standard is aimed at creating a flexible audit that is suitable for the logistics chain for food, packaging, and consumer product supply. The new scope of Issue 4 allows further tailoring to the site. The site can choose which sections (module) that best suit the specific operation. This is even to the extent that different areas of a single site can be audited against different modules. This standard has been updated every few years since the original version release in 2006. Such regular updates show the adaptability of BRC in a changing commerce and industrial environment.

What's new?

This time around, we see many similarities with the pest management section in the BRCGS Food Safety standard Issue 8. Most specifically, the requirement for Field Biologist visits. This will be welcomed by the pest management industry. Field Biologist visits should provide additional assurances and enhanced quality of the services being provided.

Other enhancements

Following the trend of many of the audit standards at the moment, a risk-based system for service provision must be used. This is to be reviewed with any site changes: including process changes, building changes, pest status changes. Pest management, falling under section 6.6, again follows the BRC ethos that all site employees shall understand signs of pest activity and report anything they find. We do see this as an emerging understanding that pests cannot simply be the sole responsibility of one person. As with health and safety it is the responsibility of all to report anything amiss. Immediate action is needed should any evidence of pests be found. All aspects of this need to be documented.

Other extra requirements are also present in the standard. Products need to be stored correctly to minimise the risk infestation. This is a must for the reports - comment on storage and space to allow inspection whenever necessary.

For the records

The pest control contract and the roles of the pest management personnel all need clear definitions. All the normal documents also apply:

- Site plans (all devices)
- Monitoring and bait points clearly identified
- All details of pest control products used
- Any pest activity
- All details of pest control treatments carried out
- Records of inspection, proofing, hygiene, and the corrective actions maintained

Further stipulations include that records can be paper or electronic. Also, that the site can carry out its own pest management. This provided they have appropriately trained and designated personnel with the correct knowledge, competency and there is dedicated locked pesticide storage. There is also a requirement for the site to have trend analysis on an annual basis, as a minimum, to monitor results and look for trends from all monitoring devices.

Field Biologist inspections

This is a big change and the minimum frequency for these in-depth visits is at least annually. However, the number of such visits is still based on risk. For example, if a site has ongoing pest activity the field biologist visits may be bi-monthly or more frequently. A site with no or very few issues would be one field biologist inspection each year.

To Summarise

- Documentation is paramount, we see further emphasis in this specification, with detailed and specific guidance
- A risk-based system to determine service frequency, as in the Food Safety Issue 8 standard
- Pest management is a site-wide responsibility
- In-depth pest management survey (field biologist visit), frequency based on risk but at least annually, this shall include:
- In-depth inspection of the facility for pest activity, advice on stock held for prolonged periods
- Review of the existing pest management measures in place and any recommendations for change
- Timed access, to allow inspection of equipment for inspection where a risk of stored product insect infestation exists

BAYER

Digital Pest Management™ RODENTS

Your questions answered!

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

Keeping rodents at bay across large facilities is vital, but the current method of checking every bait box is not the most efficient use of pest controller's time. However, this does not need to be the case, with the launch of new technology which can help to improve the efficiency, traceability and transparency of rodent control.

PCN

Bayer have collaborated with leading technology company Microsoft to develop a new Digital Pest Management system, which provides 24/7 monitoring and real-time capture alerts allowing pest controllers to tackle rodents in a more efficient manner.

Gary Nicholas, Digital Pest Management sales manager at Bayer, talks about what Digital Pest Management is, how it works, where it can add value and what benefits it provides for pest controllers, facility managers and business owners.

What is rodent Digital Pest Management?

Digital Pest Management helps streamline pest control practices by automating the monitoring of rodent traps using IoT technology. It is made up of a wireless network of high-tech trap sensors that provide 24/7 monitoring, real-time capture alerts and up-to-the minute rodent activity verification.

This state-of-the-art technology reduces the frequency of manually checking traps. It also provides detailed analysis allowing rodent behaviour and problematic areas to be predicted.

How does Digital Pest Management work?

Strategically placed sensor traps are located around a facility and work by sending a notification when a rodent enters the smart trap.

The Internet of Things (IoT) traps are similar in appearance to the widely used traditional break back traps, the difference being that the smart technology contained within the traps allows them to connect with the on-site gateways. The gateway acts as the interface to transmit the information to the Bayer cloud software, which in turn sends real-time notifications to users via email and text message.

This system has been developed in collaboration with Microsoft and can provide pest controllers with the ability to monitor facilities for rodents 24 hours a day, without physically checking each individual trap.

The flexible nature of the technology allows for a bespoke set-up to be developed on a site-by-site basis.

What support does Bayer offer in setting up this technology?

The UK support team are available to assist at every stage of Digital Pest Management implementation. This can include helping with site surveys, meetings and putting together proposals and reports to help with the mobilisation of sites. They will also offer long-term ongoing technical support.

We are providing a comprehensive consultancy service alongside this solution, to help ensure pest controllers and facility managers get the most out of this new technology in their day-to-day role.

Where does Digital Pest Management work best?

Ultimately this system is not viable for all rodent control situations.

Digital Pest Management solutions were initially developed with larger sites, particularly food industry facilities in mind. However, due to the flexibility of the system many other applications have since been identified such as, shopping centres and retail parks, office complexes, education facilities and healthcare sites.

This solution works well in any site or facility where access may be restricted or difficult. Digital Pest Management can be used long term or on shorter projects such as construction and development sites, where technician safety and lone or remote working is of paramount importance.

The system notifies pest controllers within three seconds of the trap being activated, allowing them to act quickly and save time on these larger sites.

It can also be useful in empty premises, to provide an alert of a rodent problem to pest controllers or facility managers, without the cost of regular site visits.

How can Digital Pest Management support pest controllers and facility managers?

The Digital Pest Management system is a tool that will save pest controllers a significant amount of time on larger sites allowing for a more targeted service visit.

Historic data is stored on the Bayer cloud database. With this information and the analytics produced from it, pest managers can identify reoccurring problem areas, predict future activity and infestations. This data can then be used to advise on solutions that address the root cause of the problems such as proofing, hygiene or environmental issues.

The Bayer Digital Pest Management solution provides facility managers with regular reports, but they can also login to the platform and see the live results for themselves. Not only does this help with transparency and traceability but if it is a site comprising of numerous different organisations, it can provide facility managers with the evidence required to flag these problems to the specific businesses.

The system can also help pest controllers build improved relationships with their clients.

Can Digital Pest Management support organisations with their environmental responsibility goals?

Environmental responsibility is an increasing focus for many businesses, meaning that a tool that delivers full transparency around the decision-making process behind opting for rodenticides is a huge advantage.

This system will remove the requirement for blanket treatment, allowing pest controllers to respond to known issues and use rodenticides in a far more targeted and precise manner.

CRRU highlights potential link between the pandemic and an increase in residues

The Campaign for Responsible Rodenticide Use (CRRU) has said that an increase in rodent treatments during the pandemic may well increase residues of rodenticides into wildlife.

While the COVID-19 pandemic has an effect on pest controllers being unable to undertake their usual pest control services, there have been many media reports about more pests being around, because of the various behavioural changes that have been going on as a result of the lockdowns.

Dr Alan Buckle, CRRU's chairman, said: "If there are more pests around, then there are likely to be more rodenticides used if people, as they usually do, rely on them to control these pests.

"If more rodenticides are being used, then that's going to mean residues may well go up, rather than the downward movement we want to see."

Dr Buckle said that some UK universities have started studies to look for coronaviruses in rodents because clearly there's a close proximity between humans and commensal rodents, rats and mice.

"There are already studies going on to look and see if commensal rodents are carrying any coronavirus, let alone the COVID-19 coronavirus," he added.

FREE rodenticide resistance testing service continues

Appeal to pest controllers, farmers and gamekeepers for samples

Free DNA testing for rodenticide resistance in rats and mice is still available with the Campaign for Responsible Rodenticide Use. Chairman Dr Alan Buckle calls for tail samples of freshly killed rats and mice from pest controllers, farmers and gamekeepers who think they may have resistance problems.

"The spread of resistance can only be tackled if we know where it is, and we are entirely dependent on people using this service for the data we need," he says.

Otherwise, pest controllers, farmers and gamekeepers could be using products that are ineffective in places where rodents are resistant. And where resistance genes are still absent, others may be using resistance-breaking products unnecessarily. Only more samples can solve this.

The DNA tests will be conducted by the Animal and Plant Health Agency (APHA), Weybridge, Surrey. In addition to aiding rodenticide choices, Dr Buckle says this new collaboration with APHA enables CRRU to fulfil its resistance monitoring commitment under the UK Rodenticide Stewardship Regime.

Details how to collect, store and send samples to APHA are available at thinkwildlife.org/downloads.

Leader of CRRU's Monitoring Work Group Richard Moseley says a serious concern is the almost complete lack of data from central England and most parts of Scotland, Wales and Northern Ireland.

In the past two years, new hotspots of rats with resistance genes have been found in Northumberland and County Durham, Tyneside and North Yorkshire, Devon and East Anglia, Greater Manchester and along the River Severn valley from north-west Shropshire to Somerset. Going back a number of years, resistance genes have become widespread across central southern England.

Cholecalciferol rodenticides covered by stewardship regime

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

Rodenticides based on cholecalciferol are subject to conditions of the UK Rodenticide Stewardship Regime, operated by the Campaign for Responsible Rodenticide Use UK. This confirmation is prompted by new products coming to the UK market.

CRRU chairman Dr Alan Buckle confirms that pest controllers, farmers or gamekeepers considering the use of cholecalciferol should first read the product label carefully and ensure compliance with general principles defined by the CRRU Code of Best Practice.

"Used responsibly, of course, it is a welcome addition to the options available in the UK for integrated rodent pest management," he says. "For comparisons between cholecalciferol and anticoagulants, users should refer to product manufacturers or distributors."

The CRRU Code of Best Practice is being updated and any cholecalciferol-specific measures will be covered in the new edition. Meanwhile, the existing version can be downloaded from thinkwildlife.org/code-of-best-practice/.

Chartered Institute of Environmental Health

CIEH appoints new Chief Executive and President

CIEH has confirmed two new appointments. Dr Phil James joined in January 2021 as its new Chief Executive. Phil was most recently the Chief Executive of the Institute of Leadership & Management, a world-renowned specialist membership body that raises the professional standards of more than 30,000 leaders, managers, coaches and mentors. He had held this role since 2016 before leaving in July this year to complete his doctorate. Joining Dr Phil James is Julie Barrett who is now the CIEH President. Julie brings with her a wealth of experience from her previous role as Director of CIEH Wales, where she worked for 15 years before becoming a Proprietor in Legal training as a Barrister.

www.pestcontrolnews.com/news

State of the UK Barn Owl population – 2019

'A relatively good year in many areas'

Results from 40 independent groups collated by the Barn Owl Trust

A crucial and iconic non-target species, the barn owl *Tyto alba*, around 90% of which are contaminated with anticoagulant rodenticides, has had a 'relatively good year' in terms of its 2019 UK population according to the Barn Owl Trust.

This unique overview of last year's breeding success is only possible thanks to the huge amount of work carried out by independent Barn Owl groups and projects across the UK. Authors of the report are particularly grateful to the groups who provided their results for 2019. Between them, the contributors to this report monitored a staggering 1,912 breeding pairs, meaning this report probably covers somewhere between 29% and 49% of the UK breeding population.

How many Barn Owls are there in the UK?

Nobody knows for sure. There's only ever been one reliable UK Barn Owl population estimate – almost 4,000 pairs (+/- 30%) in 1995-1997 (Toms *et al*. 2000). In the absence of a more recent national survey, the annual State of the UK Barn Owl Population report provides the most up to date overview.

The 2019 report is based on information provided by 40 independent monitoring groups and includes results from new contributors in North Dorset and Derbyshire.

General Summary

Overall nesting occupancy in 2019 was a fairly impressive 21% higher than the all-years average. It is worth noting that the range of figures used to calculate this includes very negative results, such as -51% on Jersey, and extremely positive results such as +101% in Gloucestershire. Regionally there was considerable variation with generally good results in the east, relatively poor in much of the west, and mixed in the south.

At 2.8, the mean brood size in 2019 was neither bad nor particularly good when compared to the average of all previous years. After such a promising start in terms of nesting occupancy, a corresponding result failed to materialise when it came to nesting success. Could the weather during the nesting cycle help explain this? In general, a relatively warm but dry winter followed by a warm and reasonably wet spring can help to increase Barn Owl brood size in the UK (Dadem *et al*. 2011). Adequate rainfall in spring is important because water shortage affects vegetation growth that is required to feed voles during a period when their population is typically at its lowest level (Taylor, 1994).

In 2019, temperatures were normal in January and well above average from February to April. However, a very wet March followed by a relatively dry spell in April and May could have affected the breeding pairs during their incubation and brooding phase. Furthermore, June was perhaps too wet, particularly in Lincolnshire, Midlands and east Wales, where there was well over twice the usual rainfall.

Regions

Merseyside down to Gloucester, central England and the eastern seaboard – generally good.

This massive area was generally good for Barn Owls in 2019 both in terms of the number of breeding pairs (nesting occupancy) and young produced (mean brood size).

Southern England from Wiltshire to East Sussex – highly variable. Nesting occupancy was good in most reported areas with +43% where the Middle Thames Ringing Group straddles the Berks-Bucks border, +23% in Wiltshire, and +17% as "good" in West Berkshire.

The West, from Galloway down through Wales and the SW to Jersey – poor to very poor.

2019 was a poor year for barn owls in the west. In Galloway, nesting occupancy was -41% below average and even though brood sizes were higher than in 2018, they were 7% lower than their all-years average. These results are in marked contrast to those in Northumberland (on the same latitude), where Barn Owls had a remarkably good year.

The full report can be downloaded here **https://www.barnowltrust.org.uk/wp-content/uploads/State-of-the-UK-Barn-Owl-Population-2019-V2.pdf**

Barn owls and responsible use of rodenticides

Guidance on controlling pest rodents and minimising risk to non-target species such as Barn Owls can be found on the Campaign for Responsible Rodenticide Use (CRRU) UK stewardship regime website www.thinkwildlife.org where users can download copies of the "CRRU UK Code of Best Practice: Best Practice and Guidance for Rodent Control and the Safe Use of Rodenticides" and the "Environmental Assessment When Using Anticoagulant Rodenticides".

Anticoagulant residues in Barn owls

An important measure of the effectiveness of stewardship, in terms of reducing wildlife exposure to rodenticides, is the prevalence of anticoagulant residues in the livers of the sentinel species, the barn owl. This has again proven stubbornly inflexible. According to the latest report from the Centre for Ecology & Hydrology, it shows no statistically significant signs of reduction. It may be too soon for the changes that stewardship has brought about to user competence and behaviour, and their application methods, to be reflected in this complex and highly dynamic biological system. But on the positive side, the regulatory changes that now mean that the most powerful resistance-breaking anticoagulants, brodifacoum, difethialone and flocoumafen, can be used outdoors for the first time in 30 years have not resulted in a significant increase in overall anticoagulant residues in barn owls, as was feared.

For more information on barn owls please visit https://www.barnowltrust.org.uk/

Alphachloralose mode of action

How does alphachloralose work as a rodenticide? It does not act in the same way as anticoagulant rodenticides. It is a narcotic; it has a soporific effect. Simply, it sends house mice into a deep and everlasting sleepy death. While that is not the most technical description, we will come on to that. The mode of action means that, in terms of managing resistance to anticoagulants, it is a non-anticoagulant. It could be even more useful now that we know of increasing resistance problems, to bromadiolone and difenacoum, in house mice.

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

History

Alphachloralose, originally used as a human anaesthetic, was being applied in Europe for bird control and the early 1960's saw its use in the UK for the same purpose. The story goes that the attending team on one such bird treatment saw that mice feeding on grain, used to stupefy the birds, were succumbing to the same effects. Mice were narcotised in the same way and so began the development process to create a mouse control product.

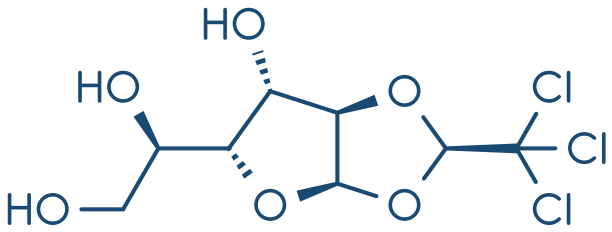
Mode of action

Alphachloralose kills by retarding metabolism'*. The activity of the brain, breathing and heart rate are all slowed down. The effect of slowing these essential bodily processes will lower body temperature and triggers a state of hypothermia (meaning that there is not enough heat created by metabolism to maintain normal processes). The house mouse goes into a hypothermia induced sleep, which they cannot recover from. These effects occur, more frequently, in smaller animals as the metabolic rate cannot keep up with the heat lost from the surface area of the body. This is the reason why alphachloralose is ineffective against rats. They are larger and therefore have greater potential to create more heat, should they need to, and can overcome the effects of any ingested alphachloralose. If alphachloralose was ingested by most other larger mammals, such as domesticated creatures (cats, dogs), they can be treated so recover. They would need to be kept warm and treated symptomatically, as there is no antidote. Death is very rare and a full recovery would be expected.

The other feature of alphachloralose is that, once ingested, the component parts are rapidly metabolised (broken down). It does not bioaccumulate and tends to move very quickly through the system. A house mouse could be sleeping, due to the rapid mode of action, within 15 minutes of ingesting a lethal dose.

Toxicity

The mode of action is very much temperature dependent. If the area is warmer, the efficacy decreases. There are, however, recent reports finding that alphachloralose is still effective in warmer temperatures. A percentage of around 4% active ingredient is generally used. This is a concentration known to be both effective, at the range of ambient temperatures 15°C to 24°C, and which should remain undetectable on the taste spectrum.



chloralose

However, the age-old problem as with many rodenticide formulations is palatability. How much bait would be needed to provide a lethal dose to a house mouse *(Mus musculus)*? A very small amount! At 4% concentration of active ingredient, ingested where the temperature is 16-20°C, just 0.3g of bait would provide a kill rate of 90% of the house mice.

Indoors only…

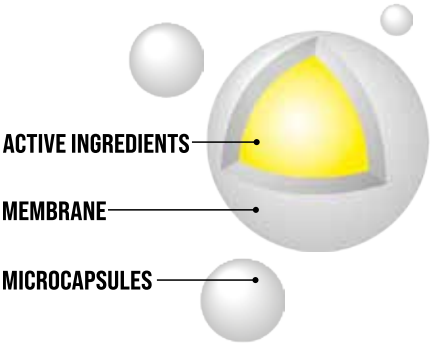
One of the reasons to use the product solely inside, as well as the clear label directions, is the risk to non-target species. There is historical evidence of the effects on birds and they would be a primary concern. The time-period that the rodenticide is down for should be monitored. A period of treatment with alphachloralose based products should last around 7-10 days. After this point it should be removed and replaced with an alternative rodenticide preparation. There is no known resistance to alphachloralose but tolerance is possible due to sub-lethal doses. Pre-baiting was, historically, carried out prior to the use of alphachloralose based products. However, with increased palatability, evidenced by lab and field trials, it does not seem to be necessary.

In summary

- Alphachloralose has proven efficacy
- As with all rodenticides always read the label
- There is no known resistance
- Alphachloralose is a narcotic, not an anticoagulant

* All references used can be requested by contacting **technical@pestcontrolnews.com**

MICROENCAPSULATED INSECTICIDE
MICROTECH CS PRO



MICROENCAPSULATED INSECTICIDES ARE SUITABLE ESPECIALLY FOR CRAWLING INSECTS CONTROL.

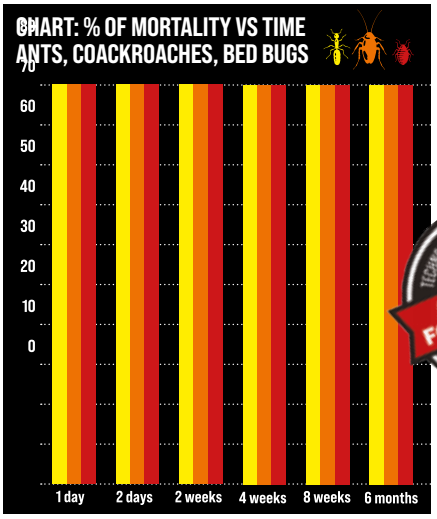
The primary reason for microencapsulation is for sustained or prolonged release of active ingredient. This technique has been widely used for targeted delivery of the actives, reducing mammalian toxicity and increasing safety to non-target organisms. The actives, such as natural pyrethrum, which are sensitive to sunlight or moisture can be stabilized by microencapsulation. As there is controlled release from capsules, fewer treatments are needed and that is why the product is also more user friendly.

EFFECT MICROTECH CS PRO IS NON-SYSTEMIC INSECTICIDE WITH CONTACT AND STOMACH ACTION, BASED ON A COMBINATION OF THREE DIFFERENT ACTIVE SUBSTANCES.

All three active ingredients interact and improve product effectiveness. Product has been formulated using microencapsulation technology to provide a product designed specifically for the urban and household environment. A contact insecticide is especially effective against crawling insects. It is meant for the control of cockroaches (Blatella germanica, Blatta orientalis) and ants (Lasius niger). The microcapsules are in a diameter from 5 to 15µm and are obtained by the process of polymerisation.

THE SIZE OF THE MICROCAPSULES ENABLES THEM TO STICK ON THE INSECT BODY SO THAT THEY LATER CARRY THEM INTO THEIR NEST OR HARBOURAGE, THUS CAUSING THE ENTIRE INSECT POPULATION TO BE ERADICATED.

The role of the microcapsule wall is to slowly release the active substances on the treated surfaces. They slowly degrade when exposed to air. At the same time, the microcapsules protect the active substances from the environmental conditions like heat and moisture. This mode of action, the size of the microcapsules and their wall thickness enable a gradual and even release of the active ingredients, which ensures the product is effective up to six months on the treated surfaces (even on porous surfaces). The majority of the active substances are inside the microcapsules, except 2% that is in the space between the capsules, which ensures fast action. Due to the added synergist the microcapsules in Effect Microtech CS do not sink over time but remain evenly distributed.



Dilution: 25 ml / 5 l water. Tested on non-porous surfaces.

It is most important to remember that having the right formulation is key to the long-lasting, and effective protection against insects while working to minimise risks.

MICROTECH CS PRO ACHIEVES AN EXTREMELY LONG-LASTING EFFECT FOR UP TO 6 MONTHS.

Microtech CS PRO is used to control crawling pests, such as cockroaches (*Blatella germanica*, *Blatta orientalis*), ants (Lasius niger) and bed bugs (*Cimex lectularius*), in places where crawling pests appear/move – along wall cracks, along the lower edges of indoor walls and furniture. Moreover, the product can also be used on the exterior walls of buildings. The effectiveness of the Microtech CS PRO product is visible within the first 24 hours.

Use biocides safely. Always read the label and product information before use.

For more information, visit our website
www.Ratimor-Effect-PestControl.com

Your industry needs you! Sign up to PROMPT Verified

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

BASIS PROMPT is calling for its members to sign up to its new online search tool, PROMPT Verified, in order to help demonstrate professionalism in the industry.

The platform will promote PROMPT accredited pest technicians to the general public.

"It's an easy way for anyone to check the credentials of a pest controller in their area and be reassured they're dealing with a professionally qualified operator," says BASIS PROMPT CEO, Stephen Jacob.

"All that's needed is a postcode to generate a listing of approved PROMPT members. In addition to revealing the members' qualifications, users can also see that Continuing Professional Development (CPD) points have been maintained."

The platform will be launched to the public on the PROMPT website in the coming months, so it is essential that members sign-up now to be included in the listing from the date it goes live.

PROMPT members should have received an email in early December asking them to sign up, which will contain the simple steps they need to follow in order to do so.

Stephen adds that by signing up, PROMPT registered pest controllers will play their part in uniting the industry by championing the importance of regulation and education in the pest control sector.

"Our members are keen to progress their careers and develop on a professional level, so the new service will provide a real opportunity to showcase their hard work and instil customer confidence.

"It's hoped that those who sign up to PROMPT Verified will gain new business as a result. Being able to check a member's CPD status and accreditations will ensure customers are not only hiring a law-abiding pest controller, but also the most effective one for the job in hand," he says.

"The more members we have signing up, the more effective the tool will be," he adds.

The PROMPT register already stipulates that new members must be working towards, or have achieved competency qualifications, while a yearly renewal scheme ensures they have invested time in keeping their knowledge and skills up-to-date through CPD.

This frequent and continuous commitment to training and knowledge development ensures pest controllers are kept up-to-date on the safe application of pest control products; that they are well versed in the latest control techniques and that they understand their legal obligations.

For further information, please contact us on **01335 301311** or at **prompt@basis-reg.co.uk.**

PROMPT®
Register
REGISTERING EXCELLENCE IN PEST MANAGEMENT

Selontra® in action

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

Back in December, BASF launched the non-anticoagulant, cholecalciferol-based rodenticide, Selontra®. This resistance-breaking rodenticide active ingredient, with a strong environmental profile (lower risk of secondary poisoning of non-target species when compared to certain anticoagulant rodenticides), is thought to be a game-changer in the pest control industry. Tim Bloomer of Killgerm conducted his own trial on a live rat infestation at a sheep farm in the Cotswolds. Access to the site was by permission of Dan Eastwood of Eastwood Pest Control Ltd, who accompanied Tim on every visit throughout the treatment period. These were his findings.

Site Survey: 16/12/20

Description

The site is located on the edge of a small village, and is surrounded by fields, the site is set on the edge of a gently sloping hill, with no distinct water courses or woodland.

The site is quite small but still has three distinct areas. To the south of the site in the old silage clamps and a small building used as a log store and for mixing animal feed complete with hopper.

Rat activity is noted in this area in the form of defined runs and droppings in the feed shed.

The middle section of the farm consists of a livestock barn, an old milking parlour and an area of old rubble and discarded wood etc. that provides an ideal location for rats to nest. To one side of this is a barn full of large straw bales. Next to this is an old small tin sheet pig pen, with clear rat activity. Rat activity is also noted to both the barn and the milking parlour.

The third area is the old pig pens to the north of the site. Digging under the concrete is noted by both rats and rabbits, although the droppings would indicate the rabbit activity is old. Rat droppings indicate the presence of rats in a couple of areas of these old pig pens.

It is also noted that beet for animal feed is stored in a pile within the silage clamp providing food competition for any baiting.

Environmental Factors

- At the time of the survey there were no birds of prey or any other small birds noted in the area of the farm. The area does have birds of prey in the vicinity, although they are sporadic in the area.
- The detailed survey showed no evidence of other non-target species, such as field mice, within the areas to be treated

Other Risk Factors

- There were no domestic companion animals noted on the site during the survey, and none are known to frequent the site. Therefore the risk assessment allowed bait to be placed in accordance within the label conditions of "covered and protected.
- Sheep on site, so baiting around the livestock shed is limited under the terms of the risk assessment.

Conclusions

The site has a moderate level of rat activity in three distinct areas. Having considered the environmental risks on the site it is felt that cholecaciferol should be used to reduce risks of secondary poisoning.

Having also considered the risk assessment it was felt that bait points could be safely established, in the areas of clear evidence, using the label term "covered and protected

Initial Baiting - 16/12/2020

- Bait points of 5 x 20g blocks secured on cable ties, and then secured in place with tethers would be placed around the main areas of activity.
- 17 bait points to be placed in total, all using natural cover that was abundant.
- 1 bait station to be used as already in position.
- It was decided that more bait stations would be established on the next visit to take the total number to 23, due to requiring more bait to be delivered.

Follow Up Visit - 18/12/2020

Follow up visit after two days shows bait taken as follows:

Bait	Quantity	Location
Bait 1	100g	Behind a protected old tin sheet where a good rat run is established
Bait 5	30g	bait point where rat prints indicate activity through drainage hole in wall of silage clamp
Bait 7	10g	Under pallet in livestock barn
Bait 8	20g	Bait station
Bait 9	5g	Service conduit in floor of milking parlour
Bait 10	20g	Covered bait in milking parlour
Bait 11	20g	Covered bait in milking parlour
Bait 12	20g	Covered bait in milking parlour
Bait 14	40g	Under pallet

Additional Bait Points

On this visit old car wheels were installed to add 6 bait points to the bottom of the old pig pens, where rats had started fresh digging and indicated by fresh droppings. 100g bait was added to each of these, securing to the wheel rim with cable ties and then placing wheels on the ground.

Follow Up Visit - 23/12/2020

Additional bait take at previously used and new bait points:

Bait	Quantity	Location
Bait 1	0g	Behind a protected old tin sheet where a good rat run is established
Bait 3	20g	
Bait 5	120g	Bait point where rat prints indicate activity through drainage hole in wall of silage clamp
Bait 6	20g	Drain from silage clamp
Bait 7	10g	Under pallet in livestock barn
Bait 8	30g	Bait station
Bait 9	20g	Service conduit in floor of milking parlour
Bait 10	75g	Covered bait in milking parlour
Bait 11	40g	Covered bait in milking parlour
Bait 12	80g	Covered bait in milking parlour
Bait 14	80g	Under pallet
Bait 15	20g	Wheel baiters
Bait 18	20g	Wheel baiters
Bait 19	20g	Wheel baiters
Bait 20	20g	Wheel baiters
Bait 23	40g	Wheel baiters

Follow Up Visit - 29/12/2020
Additional bait take at previously used and new bait points:

Bait	Quantity	Location
Bait 1	60g	Behind a protected old tin sheet where a good rat run is established
Bait 3	20g	
Bait 5	120g	Bait point where rat prints indicate activity through drainage hole in wall of silage clamp
Bait 6	20g	Drain from silage clamp
Bait 7	0g	Under pallet in livestock barn
Bait 8	0g	Bait station
Bait 9	0g	Service conduit in floor of milking parlour
Bait 10	0g	Covered bait in milking parlour
Bait 11	0g	Covered bait in milking parlour
Bait 12	0g	Covered bait in milking parlour
Bait 14	0g	Under pallet
Bait 15	20g	Wheel baiters
Bait 18	40g	Wheel baiters
Bait 19	20g	Wheel baiters
Bait 20	20g	Wheel baiters
Bait 22	70g	Wheel baiters
Bait 23	40g	Wheel baiters

Follow Up Visit - 06/01/2021
Additional bait take at previously used and new bait points:

Bait	Quantity	Location
Bait 1	60g	Behind a protected old tin sheet where a good rat run is established
Bait 3	0g	
Bait 5	0g	Bait point where rat prints indicate activity through drainage hole in wall of silage clamp
Bait 6	0g	Drain from silage clamp
Bait 7	0.5g	Under pallet in livestock barn
Bait 8	0g	Bait station
Bait 9	0g	Service conduit in floor of milking parlour
Bait 10	0g	Covered bait in milking parlour
Bait 11	0g	Covered bait in milking parlour
Bait 12	0g	Covered bait in milking parlour
Bait 14	0g	Under pallet
Bait 15	0g	Wheel baiters
Bait 18	0g	Wheel baiters
Bait 19	0g	Wheel baiters
Bait 20	0g	Wheel baiters
Bait 22	0g	Wheel baiters
Bait 23	0g	Wheel baiters

- Dead rat also removed from milking parlour where bait take had ceased.

Conclusion

At the end of the visit on 6/1/21 the majority of activity had ceased. Therefore, the treatment was considered to have been successful bearing in mind the risk of re-infestation due to extremely wet weather. With just two points showing bait take, a decision was made to continue the visit frequency under the label condition allowing permanent baiting. The next visit was scheduled for the 6th of February.

Area by Area

- Area 1 - ongoing low-level activity that has reduced and can be dealt with through permanent baiting.
- Area 2 – pretty much dealt with and cleared with 4 visits over 13 days.
- The 5th visit shows the new activity so a further visit will take place to confirm.
- Area 3 – pig pens cleared successfully with 4 visits over 19 days.
- Day 1 (18/12/20) initial bait
- Day 2 (5 days) bait take
- Day 3 (6 days) increased bait take
- Day 4 (8 days) clear

Cost Comparison

The site was baited with 100g per bait point at the outset and several bait points replaced during the treatment as it was eaten. At the end of the treatment a large volume of the bait was removed for use elsewhere as it was untouched and still palatable. Therefore, the actual cost to treat can be based on the actual bait consumption. This was 62 blocks at 37.5p each, which equals a rodenticide cost of £23.25. On this site this can be compared to the use of a grain bait that would have been the bait of choice. The same number of bait points would have been established, and in total during the treatment period it was estimated that between £23 and £46 of grain would have been used, although more than likely it would have been nearer £46.

Dan Eastwood says, "When Tim approached us regarding his field trial of Selontra we, like most pest controllers, were sceptical about the claims of what this new product could achieve. Following the results of the initial trial, we have purchased a tub and are currently trialling it on 2 further sites against comparative historical data on previous infestations. Selontra definitely has its place in the market, especially for businesses like ours that have a large number of agricultural customers, and the increasing pressures to reduce rodenticide use. While it may not be a one size fits all solution, when it comes to minimising environmental risks we will certainly be considering it for initial clearances and ongoing protection during the winter months for our farmers."

FICAM® W: A second look at alternatives

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

The last date, 10th December 2020, for storage, use and disposal of Ficam® W has finally passed. It is time, therefore, to take a further look at alternatives.

What alternatives do we have?

Novel formulations are available

A feature of Ficam® W was the residual formulation and suitability for porous surfaces such as brickwork.

Bayer have K-Othrine® Partix™ available, a residual suspension concentrate suitable for porous surfaces, based on a novel formulation involving carnauba wax. The natural wax further reduces the environmental impact following application while also protecting the active from degradation, UV light and moisture which helps to provide better residual control. The product can be effective for up to 12 weeks when controlling general insects and up to eight weeks for bed bugs and spiders. Furthermore, this novel formulation has particles 10 times the size of typical insecticides, so the application remains on the surface increasing bioavailability and contact to the pest, allowing more effective residual control. This increased particle size means it provides a much more consistent performance on absorbent surfaces such as wood and concrete, resulting in increased product efficacy. This avoids a problem of smaller particles getting lost in microscopic gaps on surfaces. Aside from the formulation, K-Othrine® Partix™ is based on the 'top end' highly-effective 4th generation pyrethroid Deltamethrin, which provides broad-spectrum control of a range of pests in many areas of use.

Resistance management is still possible

A huge benefit of Ficam® W was its use in resistance management, thanks to the different mode of action versus the many pyrethroids on the market. Naturally, there is concern regarding resistance management in bedbug control. However, evidence from Australia showed an intermediate level of resistance to bendiocarb that was in Ficam® W in selected bedbug populations, so no product is 'resistance proof'. Furthermore, data from London showed similar resistance issues to Ficam® W in bedbug populations.

It is expected that alternative products will come to the fore in terms of resistance management, such as those containing insect growth regulators (IGRs) e.g., Biopren 6EC, with options for physical control including immobilisation and temperature.

Physical mode of action products coming to the fore

Under the radar somewhat is the recent introduction of a 'molecular mesh' / 'sprayable entrapping' product, for insect control, described as a resistance-breaking and novel technique that causes external immobilisation of target species. The drawbacks, of direct application being required and no residuality, are outweighed by the significant benefits. Crucially the 'molecular mesh' works purely by physical means (by external immobilization) and, as confirmed by the Health and Safety Executive, falls outside of the definition of biocidal products and therefore the requirements of the Biocidal Products Regulations. What this means, in practice, is a degree of flexibility in application including treatment against a broad range of arthropod pests across many areas of use. Vazor® Provecta is the name.

Another option for insect control is the use of aerosol freezing sprays, such as Vazor® Ice and similar, that work by lowering the temperature of the treated insects to below their tolerable threshold. While a freezing aerosol may not always be suitable for an entire treatment, there is a place for these products especially for spot treatments in sensitive situations to supplement other control measures.

Other wettable powders and sachet products still exist

If the wettable powder aspect of Ficam® W was key, remember that Cytrol Forte® WP is available. Yes, 'WP' stands for wettable powder! Another benefit of Ficam® W is the comprehensive label, with many areas of use and a vast list of target species listed. Cytrol Forte® WP has a similarly comprehensive label: 'For professional use in and around domestic and industrial establishments, hospitals (not in occupied wards), Military areas, restaurants and eateries (not for use on food preparation areas), stores, storage areas, slaughter houses, refuse tips, dustbins and around manure heaps. For use on soft furnishings, and hard horizontal and vertical surfaces where pests may rest, with the exception of food preparation surfaces. For use against cockroaches, fleas, ants, bedbugs, silverfish, woodlice, earwigs, millipedes, centipedes, houseflies, clusterflies, mosquitoes and wasps.' If the sachet feature of Ficam® W was a main reason for use, i.e. convenience, there are of course other insecticides on the market that utilise the sachet presentation.

More new insecticides are on the horizon

Fans of Syngenta's Advion® cockroach bait will be interested to know that a sprayable indoxacarb based product, Advion® WDG, is available in certain parts of the world. This is certainly 'one to watch' for the future in terms of the UK. Indoxacarb benefits include the 'reduced risk' classification as applied by the Environmental Protection Agency (EPA) in the United States, and the novel mode of action that breaks pyrethroid resistance. It is also worth noting that Indoxacarb is non-repellent, another well-known feature that was associated with Ficam® W. Finally, keep an eye out for an 'encore' for the microencapsulated and highly residual Demand® CS! Keep a lookout for other microencapsulated products too.

Seek technical support

There are of course many other control options and this article is by no means an exhaustive examination of alternatives, with heat treatment being a notable and underrated alternative that should be considered.

At a potentially difficult and confusing time, regarding changes to familiar insecticides, it is important to contact highly qualified and experienced technical advisors to help guide you through this period. With six technical advisors and a dedicated in-house entomologist having vast insect knowledge at Killgerm Chemicals UK, boasting more than a combined 165 years of experience in insect biology and control, you know who to trust for unbiased and reliable technical support when you need it most.

Industry advisors have, due to the loss of Ficam® W, updated their bedbug insecticide strategy recommendations.

BASF
We create chemistry

Switch to Selontra®

The speed baiting technology

- Rodent-free in as few as 7 days
- Stops wasting resources thanks to the stop-feeding effect
- Balancing performance and environmental impact
- Breaks the cycle of resistance

www.pestcontrol.basf.co.uk

A new doctor in the house

Pest Control News interviews Dr Federica Boiocchi regarding her original PhD thesis research. We discuss her experiences during a collaborative project with Killgerm Chemicals Ltd and Aston University (The Guardian's 'University of the year 2020').

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

Firstly, congratulations on passing your viva to become 'Dr Fede'! How did you feel, at the end of the viva, when you were told you had passed?
Thank you! When I was given the news, by the external examiners, I was speechless. I could not believe I had finally achieved the doctoral degree I was dreaming of for years! The year 2020 has been very stressful and it was the best Christmas gift to end it with a PhD.

So, the title of your thesis is "Examination of indoor arthropod populations in hospital and domestic environment and investigation of their associated bacterial communities" How would you explain further, in a few sentences, what your project is about?
The project focused on the arthropods that can be found in hospitals, households, and the bacteria carried. The reason I focused on this topic was to expand our knowledge in an under-studied area. Even though we spend most of our time indoors we still know little about the arthropods that dominate this kind of environment. It is well established that arthropods can disperse pathogenic microorganisms in the environment. It is, therefore, essential to better understand the health risks associated with the arthropods that live with us.

Imagine you have a short slot on TV or the radio…what are the key research findings that you would tell people about i.e. the 'headlines'?
There are three main take-home messages of my research.

First: our buildings very likely act like traps that capture arthropods from the outdoor environment. In both the hospital and household environment there was great diversity, and abundance, of outdoor non-pest arthropods. The information about the non-pest arthropod bacterial associations is scarce because this has rarely, and in some cases never, been described indoors.

Second: arthropods indoors represent a reservoir of environmental bacteria, some of which can cause opportunistic infections in humans.

Third: arthropods that spend their life cycle completely indoors showed a bacterial community very likely originated from the human inhabitants. Indeed, many human skin-associated bacteria were isolated from these arthropods.

How did you communicate your project findings to the academic sector and industry?
I had many opportunities, during the three years of my PhD, for communicating my findings to the scientific community and industrial environment through posters and oral presentations. I have participated in academic conferences such as the Early Career Microbiologists' Summer Forum, where I won the poster competition for the work on flying insects in the hospital environment. I attended Ento '19 the annual conference of the Royal Entomological Society. CIEH and SoFHT conferences and PestEx have been great opportunities to present the results of the study, to industry, on the household environment. It was exciting to discuss my findings with professionals of the pest control sector who showed interest in my research.

For our readers who are interested in learning more about your work…where can they go for further reading?
I would suggest "Never Home Alone" by Dr Robert Dunn. He is a biologist and professor at North Carolina State University. In this book he described, with scientific rigour but in simple terms, many aspects of life forms indoors. These ranged from microbes to arthropods concealed in our walls or pipes. He reported many scientific works from his research group, and other colleagues, outlining an incredibly interesting story of life in our homes.

For the insect lovers, like me, I would also suggest "Extraordinary Insects" by Dr Anne Sverdrup-Thygeson. She is a professor of conservation biology at the Norwegian University of Life Sciences. In her book she covers dozens of curious facts about the habits and sometimes incredible life cycles of insects. My article about flies carrying antibiotic-resistant bacteria in hospitals is available here https://academic.oup.com/jme/article-abstract/56/6/1684/5514158 It was published in the Journal of Medical Entomology with Dr Matthew Davies (Killgerm Chemicals Ltd) and Professor Anthony Hilton (Aston University) as co-authors. It even hit the newspapers in the UK!

Take us back to the very beginning. How did it all start in terms of the project?
I found the project advertised on findaphd.com and thought straight away that it was the perfect PhD for me.

This is because it was not very common to find a project that couples microbiology and entomology, which are my main interests. I got accepted and moved to Birmingham!

My supervisors, Professor Anthony C. Hilton (Aston University) and Dr Matthew Davies (Killgerm Chemicals Ltd), explained to me the main aspects of the project and I started my PhD journey.

Birmingham is, in my opinion, a great city to live and work in. How did it compare to Milan?
Milan is a dichotomy of gorgeous old buildings and new modern areas with skyscrapers and fancy architecture. It is a big metropolis, perfect for a weekend away, but I personally think it is too chaotic for me! I find Birmingham more people-friendly. Birmingham will always have a special place in my heart. It is very different compared to Milan and the only thing they have in common is probably the winter. I have been most impressed, not by the features and services of the city, but by the people. 'Brummies' are extremely welcoming and helpful! Despite my family and loved ones remaining in Milan I have never felt alone in Birmingham.

What was the most enjoyable aspect of your project?
I did enjoy a lot the identification of the arthropods. I was very excited by the monthly arthropod collection because I was curious to check which insects and spiders have been captured and learn more about them.

PhD's can be tough at times. What was the biggest challenge you faced?
The biggest challenge I faced was the bioinformatic analysis of the metabarcoding data because I did not have previous practical experience with it. We decided to do this kind of analysis during the first year. This was so I had the time to get ready and prepare on the subject. By the time I got the samples I managed to perform the analysis. I must thank Dr Orsini's group from the University of Birmingham for welcoming me in their lab and helped me on this aspect of the project.

How did you find the combined microbiology and entomology approach? You covered two very different fields, arguably more when you include bioinformatics!
It was not my first experience of these two fields. During my Master's internship, I focused on a project that had the goal of researching sourdough microorganisms in the faeces of stored-product insects. I had reared eight species of insects (beetles, moth, fruit flies) for collecting enough faecal material. After that I performed the microbiological analysis, in a food microbiology lab, where I learned how to work with yeasts and bacteria. Moreover, my bachelor's degree in crop science required a good knowledge of entomology and that helped me in the work of arthropod identification of the 12-month study. The bioinformatics analysis was a big challenge but thanks to training courses, online guides, and support from other colleagues I did not find many issues.

Do you have any tips for prospective PhD students?
If you work on your project with passion and dedication (without forgetting to have good times), in the end, you will really be the expert! You have nothing to fear because you have done all the work. Lastly, listen to your supervisors and fellow PhD students, if they are saying you are going to be fine, it is true.

Which species, arthropod and bacteria, did you encounter the most often?
The most common insect I have found during my 12-month study was the dark-winged fungus gnat of the Sciaridae family. Regarding spiders, cellar spiders were the most widespread.

Staphylococcus species were the more frequently isolated bacterial strain, particularly from arthropods that spend their whole life cycles indoors, such as cellar spiders and silverfish.

Do you now have a favourite insect or bacterium?
I love moths, particularly the Sphingidae and Saturniidae families, both the larval and adult stage. The ailanthus silk-moth and the elephant hawkmoth are particularly beautiful.

Regarding the bacterium I like *Bacillus* species because their colony morphologies are complex and fascinating.

What did you do before you started the PhD?
I worked for a food company as a microbiology laboratory technician. I was working with sourdoughs and flours, doing microbiological analysis, undertaking chemical and rheological essays. When this experience ended, I realised that research was my passion. It was this that led to me looking for a PhD because I wanted to continue my academic career.

What job would you have done if you had not entered academia?
I would probably be a naturalistic photographer. During high school I developed a passion for photography. I bought a nice camera and started to shoot! The macro photography was my favourite because it allows you to see the tiniest details. I have always been fascinated by nature, so my favourite subjects were flowers and insects (of course!).

What are your plans now?
In January 2021 I started a post-doc at the University of Milan. I am working on plant growth promoter bacteria in rice. I am very happy that, despite the pandemic, I was able to find a job soon after my PhD. I believe that microbiology is an extremely versatile science. I am grateful I found this opportunity for applying what I have learned so far to plant science. It could be considered my first academic love since my bachelor's degree is in crop science.

What will you miss the most about the Killgerm / Aston University work?
I am going to miss working with insects and spiders! I loved the arthropod collection of my 12-month study and they never stop fascinating me. It was great to have the opportunity to learn more about these beautiful creatures.

Aston University
BIRMINGHAM UK

Killgerm®
www.killgerm.com

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Killgerm® www.killgerm.com

Available from Killgerm

Vecotech and **Killgerm Chemicals Ltd** launch novel bedbug pheromone-based lure backed by scientific research

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

Vecotech Ltd is pleased to announce the launch of BugScents™, a novel pheromone-based bed bug lure with unique patented technology, for use in detecting early-stage bedbug infestations.

BugScents™ uses a globally patented formulation designed to attract bed bugs by mimicking the natural aggregation pheromone, to improve the detection and monitoring of infestations.

This technology has been developed to provide pest controllers with an effective and environmentally friendly solution for bed bug monitoring. The lure is versatile and compatible with a wide range of monitoring devices.

The novel bedbug pheromone composition used in BugScents™ has resulted from more than a decade of collaborative scientific research by world-leading experts in medical entomology and chemical ecology at the London School of Hygiene & Tropical Medicine (LSHTM) and Rothamsted Research.

Vecotech scientists have successfully taken on the task of translating this ground-breaking research into a technological application using the latest advancements in formulation, materials, and manufacturing technology.

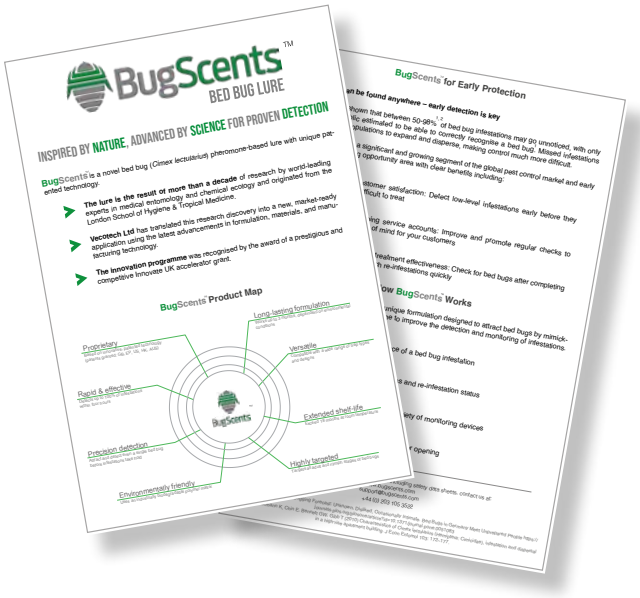
Vecotech is a technology-driven company and the first spin-out of LSHTM. It is uniquely placed to translate game-changing research into product innovation, driving both commercial and social impact to address the world's biggest public health challenges.

The launch of BugScents™ has been led by Professor Elena Lurie-Luke, Vecotech CEO, who leveraged her extensive product development experience in the FMCG sector (Procter and Gamble) to drive the commercialisation of this bedbug lure technology.

Professor Elena Lurie-Luke says: "To mitigate the impact of COVID-19, business optimisation is not enough – SMEs must find new ways to disrupt their business operations. Businesses need to do more than adapt and optimise, they need to innovate! This innovation is multidimensional, involving technological innovation and operational model innovation. The Vecotech team has embraced this challenge and, in collaboration with UK-based partners Killgerm Chemicals Ltd, brought a new product to the market".

The innovation programme behind the development of BugScents™ was supported by the award of a prestigious and competitive Innovate UK grant.

For more product information, please visit **www.killgerm.com**

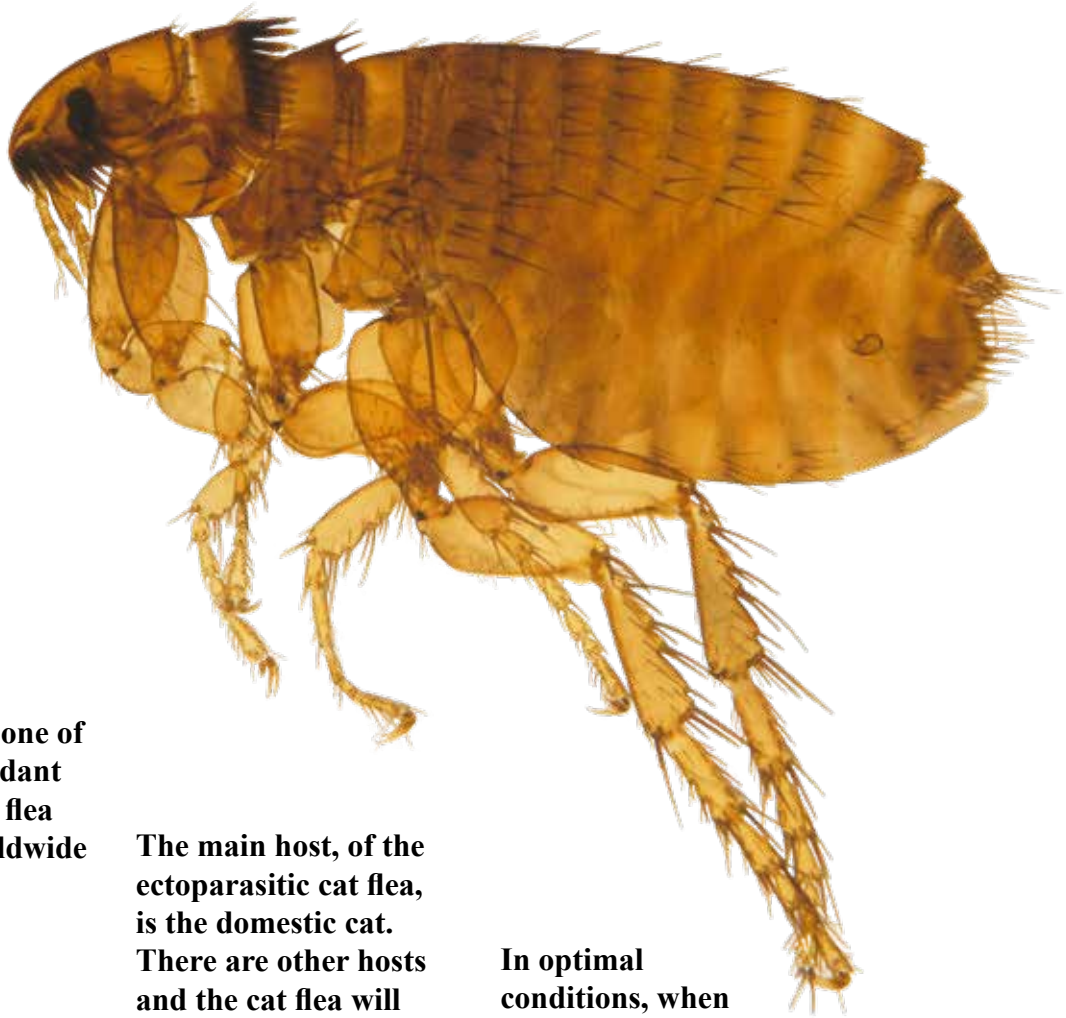


ID Corner

In this edition of the ID corner we take a look at the cat flea.

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

Ctenocephalides felis
Family: Pulicidae



The cat flea is one of the most abundant pest species of flea and has a worldwide distribution.

The main host, of the ectoparasitic cat flea, is the domestic cat. There are other hosts and the cat flea will bite humans, dogs, cattle and other wild animals.

In optimal conditions, when feeding on cats, the female cat flea can deposit 25 eggs per day. This is more than 2,000 eggs in the entire lifespan of the flea.

Fleas are thin and compressed sideways (laterally). This allows them to navigate through host fur in a streamlined way.

Top Photo: *C. felis*. Katja ZSM . Wikipedia.
Bottom Photo: *C. felis*.

Is there a new woodboring beetle on the block?

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

Ever heard of the Mediterranean furniture beetle, *Oligomerus ptilinoides*, before? Nope? Well, you can be forgiven completely as neither had we until earlier this year. It's a relatively new one to the UK. The appearance of this woodborer is best described as 'a biscuit beetle (*Stegobium paniceum*) on steroids'.

Here is a great image (courtesy of Killgerm entomologist Jonathan Binge) showing the larger *O. ptilinoides* vs biscuit beetles. Check the size – the Mediterranean furniture beetle can get up to 7.5mm in size, much larger than biscuits beetles as you can see. They can fly too.

It had been reported in 2015 in Hampton Court Palace but we believe last year, 2020, has seen the first couple of cases outside of the museum / stately home sector. The 2020 cases of this woodboring pest have been reported in domestic premises. One case was reported from a loft in a domestic property in Kent. The other from holes in a wooden bedframe in a domestic property in Surrey.

Source

The beetle carries out its development by living within the dead wood of broad-leaved trees, particularly Limes (*Tilia* spp), Poplars (*Populus* spp) and Oaks (*Quercus* spp).

Signs

- Heaps of faecal bore-dust can be seen at the level of infested materials
- Dust pellets are peanut-shaped and circular in diameter.
- Produce exit holes of approximately 1.3–3 mm diameter
- Adults are good fliers. They are active from early spring through September, with increased emergence in July and August.
- Known to attack dry hardwoods
- Causes extensive damage to furniture
- Also damages statues, wooden works of art, easel painting stretchers and paints on wood
- Can damage roof timbers

Treatment

Oligomerus ptiniloides develops in timber which has a moisture content of between 11 and 16%, which includes hardwoods and well-seasoned worked softwoods. This insect has been known to infest timber used in pallets and storage crates, which is usually cheaper softwood timber.

Treatment of structural timber pest beetles involves the location of the infested timber, followed by removal and/or treatment with a suitable 'woodworm' fluid.

If the infestation is restricted to individual items of furniture, treatment within a thermal humidity chamber should be considered.

Hampton Court Palace

The Hampton Court Palace case is explained via a poster authored by Samantha Higgs, Kerren Harris and Rebecca Gilchrist of Historic Royal Palaces. Treatment was undertaken in April 2018. The alder plywood flooring, proven, in which *O. ptilinoides* were developing, was removed prior to the adult emergence period of June - August. All boards were sealed and taken to the freezer. They were frozen at -23°C for 4 weeks before being destroyed.

By August 2018 no further beetles were found and monitoring continues. By removing what was believed to be the food source, the alder plywood, it is hoped that the problem has been solved. Vigilance continues and regular spot checks are made, including heightening awareness of this pest species. With the very real threat of global warming, alien intruders may no longer be a pesky uninvited guest but could become our new nemesis, according to those involved with this case. Advice is to be vigilant in those seldom visited or disused spaces.

Credit to David Pinniger (DBP Entomology Ltd) and Darren Mann (Oxford University Museum of Natural History) for assistance with identification.

Review of RSPH Pest Management Qualifications

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

As an Awarding Organisation that is regulated by Ofqual, RSPH qualifications are subject to periodic review. This means that we have to consult with our centres and anyone that has a legitimate interest in our qualifications to ensure that the qualifications are still fit for purpose and relevant, and to modify them if necessary.

The following RSPH pest management qualifications have a review date of 30th June 2021:

RSPH L2 Award in Pest Management

RSPH L2 Certificate in Pest Management

Although 30th June 2021 seems a long way off, time soon passes, and if the review indicates that one or both of these qualifications is no longer appropriate, RSPH will have to spend time developing a revised qualification and submitting it to Ofqual for approval.

With this in mind, RSPH is seeking the views of readers of Pest Control News to find out if we need to make any changes to the qualifications. We can make minor changes to the content of the qualifications without having to submit the new version to Ofqual, and our Sector Advisory Panel meetings have a standing agenda item to consider if any revisions are required. But if we decide that large changes are needed or that the learning outcomes or assessment criteria are no longer suitable then RSPH will need to resubmit the qualification to Ofqual.

The qualifications have certainly stood the test of time, these versions were first regulated in February 2009 (the Award) and July 2010 (the Certificate) so it is perhaps time that we critically review the qualifications to make sure that we fully meet the requirements of today's pest management industry.

For those of you who took the qualifications some time ago and may have forgotten some of the details, here is a quick reminder.

Both qualifications are for new entrants to the profession, or those who have been working as pest controllers but have not taken formal qualifications and need these for membership of trade organisations or CPD schemes.

The Award consists of three units, vertebrate pests, invertebrate pests and H&S and legal aspects. Assessment for each unit is a one-hour examination consisting of 15 short answer questions, with a pass mark of 50%.

All units have to be passed within a year (although this requirement is currently relaxed due to the COVID-19 pandemic).

Since the Award was submitted for regulation RSPH has awarded over 4,400 certificates to pest controllers.

The Level 2 Certificate in Pest Management consists of the same three units as the Award, with an additional two 'techniques' units. Candidates holding the Level 2 Award can progress easily onto the Certificate by taking the additional units. There is no requirement for candidates to obtain the Level 2 Award before they can register for the Level 2 Certificate, they are separate qualifications that share some common units.

The two techniques units are practically based and provide the necessary practical skills required to carry out pest management activities in a safe, effective, and legal manner. These techniques are particularly valuable for new entrants into the industry. The units are assessed by the centres. Centres have developed their own procedures for assessing candidates which are verified and approved by RSPH. Centres can only offer the new Level 2 Certificate after their assessments have been verified and approved.

The RSPH Level 2 Certificate in Pest Management has been awarded to almost 1,500 pest controllers since it was first made available.

Some feedback that we have received from centres is that learners find the similarity in names of the two qualifications confusing. One option for RSPH is to rename one or both of the qualifications to clearly differentiate between them. For example, the RSPH Level 2 Award in Pest Management could be retitled as the RSPH Level 2 Award in Theoretical Pest Management, and the RSPH Level 2 Certificate in Pest Management could be given the new title of RSPH Level 2 Certificate in Applied Pest Management (these are suggestions only).

So if you have any ideas about possible changes to these qualifications, in learning outcomes, content, assessment methods or titles; or if you are happy with the current qualifications and would prefer that they are left as they are, please contact Richard Burton, the Director of Qualifications at RSPH, by emailing rburton@rsph.org.uk.

Full details of these qualifications, and other regulated qualifications in pest management, can be obtained from the **RSPH website www.rsph.org.uk.**

New Products

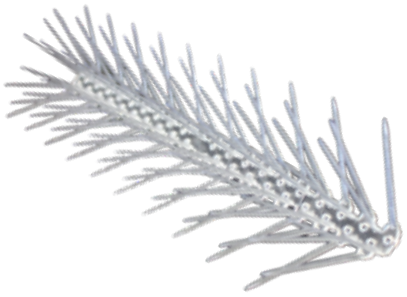
www.pestcontrolnews.com @pestcontrolnews facebook.com/pestcontrolnews

Ridmus™ Alpha

Contains 3.996% w/w alphachloralose

- New fast acting rodenticide from Syngenta Professional Solutions
- Specifically designed to rapidly control house mice infestations
- The palatable formulation of highly potent alphachlorolose can give almost instant results, from an incredibly low intake
- Ridmus™ Alpha targets the nervous system of house mice, to induce drowsiness and coma within minutes of intake, quickly followed by death
- No known resistance to Ridmus™ Alpha

www.syngentappm.com



Thistle Small Bird Spikes

- This all polycarbonate spike is the perfect solution for deterring the most determined small bird from perching on commercial or domestic properties
- It is also very effective against larger birds such as pigeons and seagulls
- Each strip measures 33.3cm, contains 80 pins, pin height: 62mm
- The clear plastic pins span out in 8 different angles creating an impregnable surface
- The pins are half the height of a traditional pigeon spike, giving it a great low profile
- The base features silicone fixing holes and break lines if required during installation
- Supplied in packs of 5 metres

www.killgerm.com

WiFi Video Borescope

- A multi-purpose mountable WiFi Video Borescope
- Supplied with a 1 metre telescopic pole, hook, magnet and flexible gooseneck attachment
- Camera has 6 adjustable LEDs and is capable of high quality still shots and video recording
- The camera is IP67 rated so can be used underwater
- Operating time of 80-110 minutes with a charge time of 70 minutes
- Built in WiFi hotspot is compatible with both IOS and Android devices
- Can also be attached to longer poles to accurately treat difficult to see wasp nests or for surveying at high level
- Packaged in a robust zipped carrycase

www.killgerm.com

BugScents™ Bed Bug Lure

- Developed by experts at the London School of Hygiene and Tropical Medicine
- An aggregation-pheromone-based lure that can be applied via the AF® Crawling Insect Monitor or SenSci Volcano
- Attracts nymphs, females and males irrespective of whether they have fed or not
- Long-lasting and remain active for approximately 12 weeks

www.bugscents.com

New Products

AF® Amicus

- The new wildlife conscious rat box from Killgerm®
- Species-specific bait station
- Reduces risk of non-target species entrance
- Allows rodenticides to be used, with lower risk, in all suitable areas
- Reduces risk when using traps
- Stops slug and snail damage to rodenticides
- Reducing risks to wildlife should be considered as part of an Environmental Risk Assessment

www.killgerm.com

Sensci Pyramid™

- A revolutionary new glueboard specifically designed for bedbugs
- Combines the efficacy of pitfall traps with the affordability of glueboards
- Although research has seen typical glueboards as ineffective for bedbugs, experience and technology has been used to develop a glueboard that is highly effective for bedbugs
- The Pyramid can also be used for other pests including cockroaches, whereby a cockroach lure can be added

www.killgerm.com

Sentinel Beekeepers Jacket

- A high quality grey beekeeping jacket offering greater protection than conventional beekeeping clothing
- Ventilated breathable material helps keep you cool
- Excellent visibility through clear view veil
- Velcro fastening cuffs
- Mobile phone breast pocket with zip fastening and two lined hive tool pockets
- Dual security at the neck junction
- Machine washable

www.killgerm.com

Clip Box Mouse Trap

- An easy to set reusable mouse trap made from durable ABS plastic
- Two-way entry allowing mice to enter from either direction
- Simply slide the setting switch backwards to set and then place the trap in areas of activity

www.killgerm.com

What will you discover at PestExtra 2021?

The pest management show online

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

Where: Online using the internet browser on your pc, smartphone or tablet

When:
- Tuesday 16 March 2021, 8.30am-12.30pm
- Wednesday 17 March 2021, 2pm-8pm
- Thursday 18 March 2021, 10am-3pm

Cost: Free for everyone
How: pestex.org

Whether you're new to digital events, or a webinar pro, you should give PestExtra a go this March. PestExtra is shaping up to be the biggest digital pest control event ever in the UK. BPCA has a packed seminar schedule, a vast virtual exhibition hall and an opportunity to win loads of prizes - all from the comfort of your sofa.

Between 16-18 March, you can catch seminars from one of PestExtra's FIVE theatres, with the added bonus of an on-demand area so you don't miss a thing.

Here's a sneak peek at just a few of the fantastic seminars, round tables and product demonstrations you'll have access to at PestExtra:

- **Novel mosquito control techniques to combat mosquito-borne infections** with Dr Claire Donald, University of Glasgow
- **Bird Mites: environmentally tricky, socially misunderstood, technically still challenging** with Professor Olivier Sparagano, University of Hong Kong
- **A modern rat's tale: Dutch experiences with rodenticide reduction** with Dr Bastiaan Meerburg, Dutch Pest & Wildlife Expertise Centre
- **Mythbusters** with Jonathan & Alex Wade, Wade Environmental
- **Digital pest management on the aisles** with Tony O'Donovan, Tesco
- **Five years of rodenticide stewardship. What have we achieved?** with Dr Alan Buckle, CRRU UK
- **Competitive Clout** with Mike Palmer-Day, Service Tracker
- **Smart Pest Management – Why digital pest management is the future** with Gary Nicholas, Bayer
- **Roundtable: Dealing with customer complaints** led by Natalie Bungay, BPCA
- **An Introduction to CALM** with Rosy Candlin and Maria Kuzak, Campaign Against Living Miserably (CALM)
- **Stopping a restaurant from becoming a 'pestaurant'!** with Dr Stuart Mitchell, PestWest USA
- **Drainage investigations in rat control** with Davy Brown, RatDetection.com
- **Pest management in the Ministry of Defence** with Lieutenant Colonel Jim Fawcett, Ministry of Defence
- **Designing for IPM and Stewardship** with Shyam Lakhani, Bell Laboratories
- **Roundtable: Professional Standards and Accreditations** led by Dee Ward-Thompson, BPCA.

Catch up with all your suppliers and discover new products in the vast PestExtra trade hall.

And you can still walk away with some great prizes (including £200 Killgerm vouchers!) by taking part in competitions and our scavenger hunt.

Easy to take part
PestExtra is about connecting with people - even in tough times. It couldn't be simpler to take part.

1) Register
2) Wait for the show to start
3) Click the link in your email
4) Connect with the pest management community

There are no downloads or complicated accounts to set up. Join from a phone, laptop, tablet or desktop computer.

Networking and learning
The digital environment helps us to see what seminars or demonstrations you've attended, so we can add your CPD points straight to your account so you don't have to log them yourself. Just make sure to provide your CPD number when registering and you can start building up this year's CPD points at PestExtra.

Don't miss out on the biggest digital pest management event of the year - **register at pestex.org/register**

The Killgerm Theatre
As a platinum sponsor, Killgerm has its very own seminar schedule, as well as the traditional trade show stand.

Here's the full three day seminar schedule at PestExtra:

Day 1: Tuesday 16 March 2021
8:45 - 9.30 Textile Pests: A proactive approach to control by Avril Turner from Killgerm Chemicals

9:45 - 10:30 Household arthropods and their associated bacterial communities by Dr Matthew Davies from Killgerm Chemicals & Dr Federica Boiocchi from Aston University

10:45 - 11:15 Grey silverfish by Melvin Knapp from Killgerm Chemicals.

11:30 – 12:15 Bat Awareness for Pest Controllers by Becky Wilson & Joanna Ferguson from Bat Conservation Trust

Day 2: Wednesday 17 March 2021

14.15 - 15.00 Stopping a restaurant from becoming a "pestaurant!" by Dr Stuart Mitchell from PestWest USA

15.15 - 16.00 flyDetect by Fred Hurstel from PestWest Electronics

16.15 - 17.00 Bedbug management in 2021 – a view from the United States by Jeff White from BedBug Central

17.15 - 18.00 Asian hornet awareness and identification by Nigel Semmence from the Animal and Plant Health Agency

Day 3: Thursday 18 March 2021

10.15 - 11.00 Rodent control developments in protecting non-target species by Dr Matthew Davies from Killgerm Chemicals

11.15 - 12.00 Drainage investigations in rat control by Davy Brown from Rat Detection

12.15 - 13.00 Bird Free by Alastair Fernie from Killgerm Chemicals & Ian Smith, Bird Free

13.15 - 14.00 Pest management in the Ministry of Defence by Lieutenant Colonel Jim Fawcett from the Ministry of Defence

Glue Boards – Time to Take Action

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

Love them or loathe them there is little doubt that Glue Boards have a role to play in rodent control in the UK. However, readers will no doubt be aware that these products have been under significant scrutiny over recent years. Last year's petition that was considered by the Scottish Parliament, resulted in representatives of the representatives of the Pest Management Alliance (PMA) being asked to defend their use in front of a Scottish Parliament Public Petitions Committee is testament to how serious Government is starting to take these products. Add to that, that the Department for the Environment, Food and Rural Affairs (DEFRA) is now starting to ask questions, then we must all begin to realise that we are in a period of heightened focus on the use of glue boards in the UK.

However, we have not yet given up the fight. Through their collective efforts with PMA, The BPCA, NPTA and NPAP have rigorously defended the continued availability of glue boards as part of the professional pest controller's armoury in the fight to protect public health.

Humane Society International, an animal welfare group, have argued for many years that glue boards are both indiscriminate and inhumane. They argue that glue boards are in contravention of the Animal Welfare Act (2006) by causing unnecessary suffering and regularly promote pictures of non-target animals trapped on boards to back up their claim. Their campaigning for a ban of these products is backed up by a survey they conducted in 2015, which stated that only 20% of respondents stated that they would hit the rodent with something heavy to kill it; 36% didn't know and worryingly, 9% said they would drown the rodent, believing that this was the most humane way of killing it! They also concluded that 68% of those polled would advocate a ban of these products completely.

You, the reader, might also be aware of a recent news story, where a domestic cat was found trapped on glue boards laid in a housing estate rear alleyway. Although not confirmed, given the placing of these boards, it is highly unlikely that they were laid by a professional company and were more likely as a result of amateur use. The fact that they had to resort to their use is of course a different story and we suspect borne out of frustration with the increased sightings of rats in the UK. However, that is a different argument and a story for another day. Sadly, however and despite the best efforts of the RSPCA, the cat died as a result of the injuries it received, strengthening the argument for withdrawal of these products for amateur use.

To make it clear, the PMA's position, which has been detailed to the Scottish Parliament and DEFRA, is that they would fully support a ban on sales to the amateur use and non-professional market. However, the logistics, such a ban may well prove very challenging, particularly given the lack of legislation to support this and the ready availability of glue traps through everything from market stalls, through to online retailers. The concern is that it may well prove much easier to bring in a total ban rather than just ban sales to the amateur market.

Readers may or may not be aware that glue boards have been banned in several areas of the world, including the State of Victoria and the Republic of Ireland and that other countries have placed such stringent restrictions on their use to make them unviable. Indeed, the Scottish Parliament recognised that bans may not be completely effective due to the ready availability of glue boards through online retailers etc.

Consultations with various Government departments are ongoing, however, in the meantime we would urge all members who use glue boards to use them responsibly and in accordance with the Pest Management Alliance (PMA) code of best practice. In this way, we differentiate between professional pest control activities and those treatments carried out by amateurs.

The full PMA code of practice can be downloaded from Codes of Best Practice - Pest Management Alliance (pmalliance.org.uk) and we would urge all members to do this as a matter of course. It is highly likely that a new and revised guidance document will be released in due course to complement the code of best practice. We will of course keep you all informed of the release date.

Just to summarise with one final point:
If we want to keep glue boards as part of the professional pest controllers armoury, despite ongoing pressure...

We have to use them responsibly and justify their use.

NPTA
tomorrow's association
for today's technician

0113 245 0845 giles.ward@milnerslaw.com or uk.linkedin.com/pub/giles-ward/31/187/6b3 @MilnersGiles

COVID 19 - Business Interruption Claims

Following the city's heavy weight lawyers brawling through the courts (with Messrs Herbert Smith for the Financial Conduct Authority or FCA, Simmons and Simmons for the insurer) we finally have a verdict. It's not a knockout blow but a very good points decision for the FCA on appeal to the supreme court which turned the tide against the insurers at least for a good number of policy holders.

In short, the FCA sought clarity on business interruption policies for the widest range of parties possible following the onset of the global pandemic which has risked hundreds of thousands of jobs in businesses under huge financial strain, and the judgement is said to remove many roadblocks for claims by policyholders. In terms of numbers, we are talking about some 370,000 businesses with approximately 700 types of policies issued by 60 different insurers. A sample of 21 policies were taken from 8 insurers and arguments were put forward on behalf of the insured i.e., you, and in the public interest - by the FCA. The size of money involved in this litigation and the pay outs now due should not be underestimated and frankly are telephone numbers, providing, it is hoped, a vital lifeline to a lot of SMEs who are on their bootstraps. It is quite laudable that the FCA committed to such an action so speedily removing the need for years of endless litigation by various action groups of insured policy holders who would in part already be starved of cash, although whether satellite or off shoot litigation will ensue is yet to be seen.

The High Court in September 2020 ordered that most disease clauses and prevention of access clauses did provide cover AND the virus, government and public response caused the BI. The insurers appealed however they were dismissed in the higher court but for different reasons.

This article will not do justice to the judgement in the Supreme Court of 112 pages, but the following issues were broadly covered:

- **Disease** – there is cover for "any occurrence of a notifiable disease within a 25-mile radius of the premises".
- **Prevention of access/hybrid wording** – losses from public authority announcements/intervention would be taken as ordinarily meaning "mandatory".
- **Causation** – the court held "there is nothing in principal or in the concept of causation which precludes an insured peril that in combination with many other similar uninsured events brings about a loss with a sufficient degree of inevitability from being regarded as a cause…. even if the occurrence of the insured peril is neither necessary nor sufficient to bring about the loss by itself." Enough legal jargon – it is easier to make the link between the occurrence and the loss and the well-used and highly effective insurer argument on causation in this case has not been the get out of jail free card.
- **Trend clauses** – this has the effect of chipping down claims and effectively did not go the insurers way. In the absence of clear wording insurers now cannot reduce the indemnity/pay out due for the fact that the loss was caused equally by other perils, the underlying cause of which was also COVID-19.
- **Pre-trigger losses** – it was judged that the indemnity should be calculated on what would have been earned had there been no COVID-19 in the first place.
- **Orient Express case** – the high court amended some bad case law and overruled it making it easier to claim and harder for the insurer to make specific causation arguments.

There are still big differences between coverage and quantum of claims, but it is hoped that the insurers will act swiftly and fairly to expedite claims with their own processes to avoid court.

For businesses wanting to make a claim for BI, firstly check your policy to see if it is covered, and if unsure ask your broker or friendly lawyer. The FCA is due to publish a series of declarations, and then a series of questions and answers, listing those policies that should respond in order to help policy holders so in principal it should be possible to make those claims yourself and I would recommend that this path is chosen for claims of a modest amount. For those claims that are larger, again it is possible to make them yourself but perhaps like all things, the more money at stake, the more advice should be taken on a course of action. If anything arises from the above please do not hesitate to contact myself, Giles Ward on **07789 401 411** or email **giles.ward@milnerslaw.com.**

Your guide to the pest control
2021 TRAINING DATES

Killgerm Training run courses nationwide offering different types of courses for different levels of experience and knowledge. 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 on pages 235-237. For further information or to book your place on a course call: **01924 268445** or email **training@killgerm.com**.

April 2021

01/04/2021 Insect Workshop 2 - Ants, Bees & Wasps – Newbury
06/04/2021 Killgerm Principles of Rodent Control – Ossett
07/04/2021 Flying Insect Management – Newbury
07/04/2021 - 08/04/2021 Killgerm Principles of Insect Control – Ossett

15/04/2021 Insect Workshop 2 - Bedbugs & Fleas – Tamworth
20/04/2021 Drainage Investigations & Rat Control – Ossett
20/04/2021 Killgerm Principles of Rodent Control – Bristol
20/04/2021 Safe use of Air Weapons for Bird Control – Reading
22/04/2021 Pest Control Refresher/Update – Norwich
28/04/2021 Safe use of Air Weapons for Bird Control – Kibworth
28/04/2021 Trapping Techniques - Southampton

May 2021

04/05/2021 Bird Control - Theory – Bisley
05/05/2021 Bird Control - Practical – Bisley
05/05/2021 Pest Control Refresher/Update – Ossett
06/05/2021 Insect Workshop 2 - Ants, Bees & Wasps – Ossett
06/05/2021 Pest Control Refresher/Update – Newbury
11/05/2021 Killgerm Principles of Rodent Control – Ossett
12/05/2021 Insect Workshop 1 - Bedbugs & Fleas – Bristol
13/05/2021 Insect Workshop 2 - Ants, Bees & Wasps – Bristol
18/05/2021 Bird Control - Theory – Kibworth
18/05/2021 Insect Workshop 1 - Bedbugs & Fleas – Norwich
18/05/2021 Killgerm Principles of Rodent Control – Livingston
19/05/2021 Bird Control - Practical – Kibworth
19/05/2021 - 20/05/2021 Killgerm Principles of Insect Control – Livingston
20/05/2021 Flying Insect Management – Tamworth
27/05/2021 Insect Workshop 2 - Ants, Bees & Wasps - Livingston

June 2021

08/06/2021 Killgerm Principles of Rodent Control – Ossett
10/06/2021 Pest Control Refresher/Update - Co Durham
15/06/2021 Killgerm Principles of Rodent Control – Newbury
15/06/2021 - 22/06/2021 RSPH/BPCA - Level 2 Award in Pest Management - Units 1 – 3 – Ossett
15/06/2021 Safe use of Air Weapons for Bird Control - Holmes Chapel
17/06/2021 Safe use of Air Weapons for Bird Control – Doncaster
23/06/2021 Practical Bird Netting – Kibworth
23/06/2021 RSPH/BPCA - Level 2 Award in Pest Management - Examination – Ossett
24/06/2021 Insect Workshop 2 - Ants, Bees & Wasps – Ossett
24/06/2021 Safe use of Air Weapons for Bird Control – Reading
29/06/2021 Drainage Investigations & Rat Control – Newbury
30/06/2021 Practical Bird Netting - Bisley

These dates are to be reviewed in accordance with government guidelines

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

Killgerm®

You know when you're in safe hands!

www.killgerm.com

RODENT CONTROL

Designed by experts
For use by professionals

AF® Amicus

Wildlife Conscious Rat Control

- In testing, there was no evidence of non-target species such as wood mice and bank voles entering the box.
- Slugs and snails have also not been observed to enter, which helps to prevent rodenticide damage.
- When set to the correct height, the unique patented downward facing tubes naturally attract rats and allow them to climb up into the box, giving access to the rodenticides or traps inside.
- Accommodates many bait formulations and can also be used with break-back rat traps if required
- Readily accessible by the technician and with a removable door that also acts as a useful shelf, AF® Amicus will hold many of the usual types of rodenticides and traps.

For further information call:

01924 268420

Supporting a pest free environment.

Killgerm Chemicals Ltd.
Wakefield Road, Ossett, West Yorkshire, WF5 9AJ
t: +44 (0) 1924 268420 **e:** sales@killgerm.com
www.killgerm.com