

PPC95

PLUS

Wax moths: communal pupal chambers and inquilines

Clean Air Zones and daily van checks

BPCA's new primary authority partner

PESTEX SPEAKER A RECIPE FOR ROACHES

Steve Broadbent revisits PPC for part two of his feature on creating excellence in cockroach baiting programmes

18

The UK's premier pest control event
...REVIEWED!

BPCA
PestEx

11

BRITISH Pest Management AWARDS 2019  16



22

YOU MITE MISS IT
Spotting mite infestations in time to act effectively



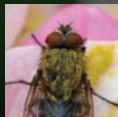
26

FLEA-TING FRIENDSHIPS
Pest controller and customer relationships in flea treatments



28

PESTWATCH: CLUSTER FLIES
Seasonal pest management advice for this tiny fly



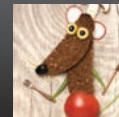
30

ALL THINGS APIS MELLIFERA
The impact of modern chemicals on invertebrates necessary to life



33

RODENT RISKS
Pest infestations and their effect on the enforced closure of food establishments



36

DEALS ON WHEELS
Should you finance your pest management vehicle fleet?





PPC LIVE

Technical excellence in practice

11 MARCH 2020 / YORKSHIRE EVENT CENTRE, HARROGATE

- 50+ EXHIBITORS
- EARN VITAL CPD POINTS
- PRIZES AND GIVEAWAYS

11/03/2020
SAVE THE DATE!

VISIT

bpca.org.uk/ppclive

EMAIL

events@bpca.org.uk

CONNECT

#PPCLIVE2020

WHAT?

PPC Live 2020

WHEN?

Wednesday 11 March 2020

WHERE?

Yorkshire Event Centre
Great Yorkshire Showground
Harrogate HG2 8NZ

PPC Live is for the pest management professional.

Whether you're an experienced pest control technician, a surveyor, support staff, a specialist, or just want to learn more about the sector - this one day event is for you.

PRACTICAL
OUTDOOR
PRODUCT
DEMOS



SEMINARS
DELIVERED
BY INDUSTRY
EXPERTS



THE LATEST NEWS,
PRODUCTS AND
INDUSTRY CHANGES

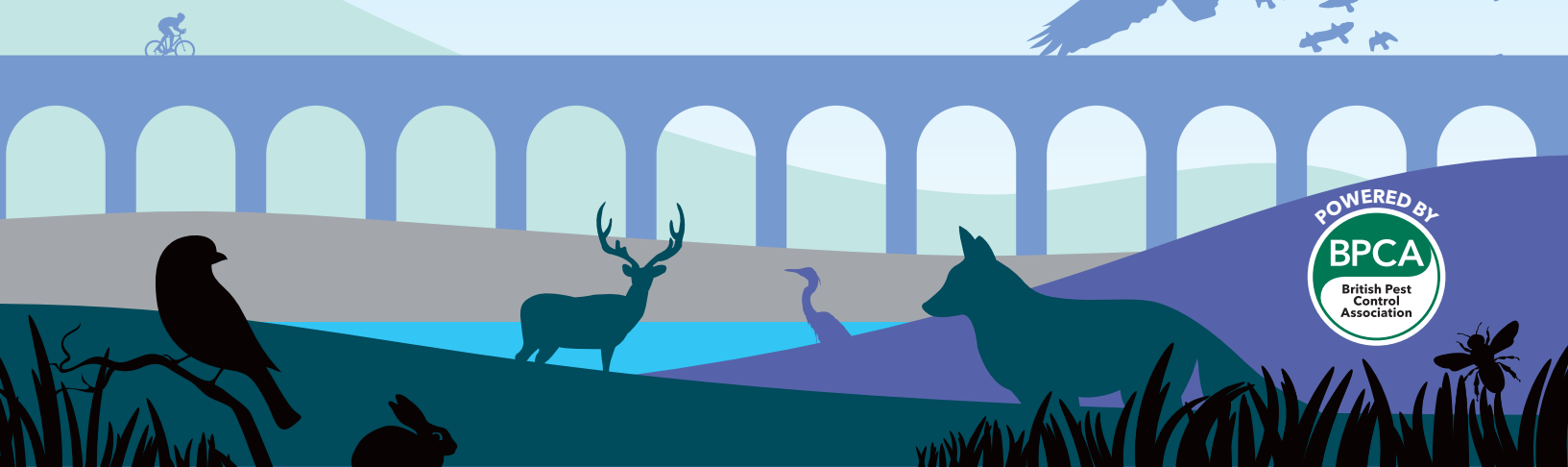


NETWORK WITH
LIKE-MINDED
PROFESSIONALS

PPC Live is a chance to get hands on with the latest and greatest pest management innovations, and to pick up some new skills along the way.



bpca.org.uk/ppclive



So how was your PestEx?



“ This PestEx was a particularly important milestone because not only did the show attract more visitors than ever, it was also solely organised by the BPCA Staff team. ”

For this issue of PPC firstly I'd like to say a big thank you to those of you that managed to attend PestEx in March. For my part, I thought it was a resounding success and the BPCA Staff team really did pull off a great show. I hope you found your visit as rewarding as I did and you picked up some unstructured CPD learning points along the way.

This PestEx was a particularly important milestone because not only did the show attract more visitors than ever, it was also solely organised by the BPCA Staff team without the assistance of an event organiser. A fantastic well done to Ian and the entire Staff team for really doing a top job.

I've also received some positive feedback from exhibitors who reported their stands were as busy as ever and they had excellent opportunities to showcase their products and services. They are already reserving spots for PPC Live in 2020!

WHAT DID YOU LEARN?

One of the best parts of attending an event, like PestEx, is the opportunity to catch up with colleagues and share our knowledge. 'Unstructured' CPD points are really about recognising the different ways that we learn and not just about being sat in a training room.

If you popped by the BPCA stand you would have noticed there were plenty of members and non-members finding out about what BPCA can do for them. I was really pleased to see the whole BPCA team talking to members pretty much nonstop for the whole show.

There were also lots of opportunities to further knowledge in the excellent programme of both technical and business seminar theatres. The seminars were well attended so I hope that if you were one of hundreds of members who attended the sessions, you learned something useful.

BPMA'S

So a fantastic number of entries were received for this year's British Pest Management Awards from across the industry.

There's more about the winners in this issue of PPC but I'd like to thank all of those who put nominations forward but unfortunately didn't win. I know the awards panel had a real tough time judging so it's a testament to the quality of the applications. So please don't be disheartened if you didn't win this time around. Keep up those excellent standards and why not have another go next time!

A FEW BEERS AND A CATCH UP!

The Afterparty at the end of day one was also enjoyed by all. A different format to last time around which was more formal.

This year saw a much more relaxed affair which was all about networking, catching up and some great food and drinks. There's talk about keeping the Afterparty more informal like this in the future and having the awards ceremony as a separate event next time, so keep a watch on PPC magazine to find out more.

NEW SERVICING CHAIR

I'd also like to share with you the appointment of Martin Rose-King of Bounty Pest Control as the new Chairman of the Servicing Committee. Martin's appointment also means he now sits on the Executive Board as a Director of the Association.

Martin has been on the Servicing Committee for many years and has always been a fantastic contributor and supporter of the initiatives developed by the committee for the benefit of the membership at large.

The Servicing committee are your representatives from a variety of servicing companies both large and small who volunteer their time to help

drive BPCA in the right direction for its members. They are there to discuss and find solutions to the challenges we all face in running pest control service businesses. Their input is invaluable in steering the Staff team in the development of policy for the association.

Why not send a message to Martin via Rachel if you are interested in being part of these discussions?

membership@bpca.org.uk

The Servicing committee together with the M&D Committee are also being tasked with supporting the Executive Board with the development of our longer term goals and how we are going to achieve them.

This will see some changes to how the committee agendas are structured in the future so that everyone can feed in to the key strategies in a meaningful way.

So congratulations to Martin and a well done for stepping in to the Chair position in this key time for the association.

PHIL HALPIN

BPCA President
Director, Countrywide
Environmental Services
president@bpca.org.uk



Contents

twitter.com/britpestcontrol



bPCA.org.uk/linkedin



BPCA
bPCA.org.uk
 British Pest Control Association
 4a Mallard Way, Pride Park
 Derby DE24 8GX
 01332 294 288
enquiry@bPCA.org.uk

PPC
PROFESSIONAL PEST CONTROLLER
ppconline.org
 Published quarterly by BPCA
 © 2019 BPCA

EDITORS
 Scott Johnstone
 Dee Ward-Thompson
hello@bPCA.org.uk

CONTENT TEAM
 Natalie Bungay
 Karen Dawes
 Lauren Day
 Rachel Eyre
 Kevin Higgins
 Jo James
 Lorraine Norton
 Beth Reed

ADVERTISING
sales@bPCA.org.uk

DESIGN
 Ken Davidson, Davidson IGD
www.davidson-igd.co.uk

ONLINE CPD
BPCA REGISTERED CPD POINTS
 Online CPD quiz = 1 point each
bPCA.org.uk/cpd-quiz
 Remember to log anything else you've learned in your CPD diary for even more points

BASIS PROMPT: PC/49814/19/G
 Reading PPC mag = 2 points
 Online CPD quiz = 3 points each
bPCA.org.uk/cpd-quiz



NEWS 6

PestEx REVIEW
PestEx ..IT'S A WRAP! 11

PestEx 2019 saw an incredible 29% increase in total visitors as over 100 pest management product and service suppliers descended on ExCeL London in March.

NEW AND NOTEWORTHY FROM PESTEX 2019 EXHIBITORS 12

PESTEX IN PICTURES... 14

...AND IN NUMBERS! 15

BRITISH PEST MANAGEMENT AWARDS 2019 WRAP-UP 16

A RECIPE FOR ROACHES **ONLINE CPD** 18

Steve Broadbent from Ensystex is back in PPC for part two of his cockroach article.

YOU MITE MISS IT **ONLINE CPD** 22

Can you confirm if your customer has mites early? Fera and PPC help pest management professionals monitor for these tiny pests.

CONSULTANT STORIES WAX MOTHS: COMMUNAL PUPAL CHAMBERS AND INQUILINES 25

BPCA Consultant member John Lloyd of Independent Pest Management and Insect Consultancy is back in PPC, giving us advice on how to spot and treat for these rare pests.

FLEA-TING FRIENDSHIPS 26

Richard Moseley, National Account and Technical Manager of Bayer CropScience investigates the importance of pest controller and customer relationships in flea treatments.

PESTWATCH CLUSTER FLIES 28

BPCA Field Officer, Natalie Bungay, is back again with some more seasonal pest management advice. This PestWatch we're taking a look at the tiny cluster fly.



 facebook.com/Britishpestcontrol

 youtube.com/user/BPCAvideo

ALL THINGS APIS MELLIFERA **30**

Norman Guiver from Bee.Watch investigates how 21st century chemicals have had negative impacts upon invertebrates.

RODENT RISKS **33**



Dr Belinda Stuart-Moonlight, of Moonlight Environmental, gives a view on rodent infestations in food businesses.

DEALS ON WHEELS **36**

Should you finance your pest management vehicle fleet?

CLEAN AIR ZONES **38**

Ten things you need to know about CAZs.

DAILY VAN CHECKS **39**

Every pest management professional should familiarise themselves with these checks.

HAVE IT ON GOOD AUTHORITY **40**

BPCA's new Primary Authority partner.

MEET THE MEMBER CERTIFIED SUCCESSFUL! **42**

We caught up with Hillbans Pest Control to see how they're getting on with accreditation and extra business potential.

ASK THE TECHNICAL TEAM **43**

OBSERVER STORIES A VIEW FROM GHANA **44**

Pest management in developing countries.

BPCA REGIONAL FORUMS **46**

NEW TRAINING PROGRAMME TAKING A SHOT AT PEST CONTROL **47**

THE MORE REFLECTIVE YOU ARE THE MORE EFFECTIVE YOU ARE **48**

Reflective learning in pest management.

TRAINING CALENDAR **51**



Measuring success one person at a time

I am writing this just a few days after the most successful PestEx ever.

There are many ways of measuring success. One such measure could have been footfall – although I have seen many exhibitions with lots of people milling around but not much engagement with exhibitors. That was not the case at PestEx with orderly queues forming at some stands, especially on day one.

As it was, the numbers through the door increased by 29% compared to two years ago.

Another measure of success can be the seminars. There was an excellent mix of technical and business focused seminars with many new faces on the speaking circuit. It was standing room only for some of these which was great to see.

For me the outstanding measure of success was the feeling of the event. There was a real buzz in the room from when the doors opened until they closed again. ExCeL was buzzing so much it almost interfered with Mike Dilger presenting the British Pest Management Awards at the end of the first day.

How do we really measure success? Enquiries received, jobs done, tasks completed, stock and equipment used? All of these things are essential measures, but you could deliver on all of these things and still not feel right about any of them.

How we feel at work, at home and at play is vitally important. You could have what appears on paper to be a very successful job, business, life, etc but unless it feels good, what is the point?

Many people working in our sector are lone workers, and the health and wellbeing of our people are important, particularly our mental health and wellbeing.

The Health and Safety Executive (HSE) recently published the following statistics:

The total number of cases of work-related stress, depression or anxiety in 2017/18 was 595,000, a prevalence rate of 1,800 per 100,000 workers.

The total number of working days lost due to this condition in 2017/18 was 15.4 million days.

In 2017/18 stress, depression or anxiety accounted for 44% of all work-related ill health cases and 57% of all working days lost due to ill health.

The main work factors cited by respondents as causing work-related stress, depression or anxiety were workload pressures, including tight deadlines and too much responsibility and a lack of managerial support.

PestEx, the BPMAs and the Afterparty at the Giant Robot were all a well-deserved celebration for the pest management sector, and it is right that we pause and recognise that achievement.

Many businesses don't celebrate their successes enough. BPCA is rightly proud of what we delivered over those two days in March. This was a team effort by the BPCA Staff team, the members who helped us out, as well as the exhibitors and speakers and everyone that supported us practically.

It was the first year we ran an event of this scale without a professional conference organiser supporting us which added to the pressure.

I would like to think we recognised the stress that delivering these events put on everyone involved and that we made sure everyone was supported, checked-in on, given sufficient breaks and rest periods and generally had their wellbeing cared for.

It is often easier to think about this stuff when something big is happening, but we need to remember that the wellbeing of ourselves and our staff is a 24/7 thing. If it is an afterthought, it is probably already too late.

IAN ANDREW
BPCA Chief Executive
ian@bpca.org.uk

Natural England revoke general licences: a recap



Unless you've been living under a rock, I'm sure you've heard about three general licenses being revoked by Natural England.

In fact, it's the reason PPC95 is a little later than planned.

At the time of writing, the BPCA team has just got back from a meeting with Natural England, one new general licence (controlling carrion crows) has been released, and we're all working with individual licences – patiently waiting for new general licences to be published (particularly for pigeons and gulls).

Hopefully, by the time you read this, most of the general licences you need will be available for use. That's the problem with print publications and fast-moving news. The latest details will be on the BPCA website right now – so if you're unsure take a look.

WHAT HAPPENED?

All we can do at this point is to tell the story as it is at the time of writing – but even that is no small job.

On Tuesday 23 April 2019 at about 3.30pm the BPCA team was catching up on emails after a long Easter weekend when the release dropped. Natural England told us, and other stakeholders, they were removing GL 04/05/06 which covers the lethal control of Canada geese, collared doves, crows, Egyptian geese, feral pigeons, herring gulls, Indian house crows, jackdaws, jays, lesser black-backed gulls, magpies, monk parakeets, ring-necked parakeets, rooks, sacred Ibis and woodpigeons. Oh, and this was to happen in three days' time.

We got the release online and out to the community that day via Twitter and Facebook. The next day BPCA had a position statement and emailed all members and affiliates to make sure they were aware of the changes. We were clear: "We believe the professional judgment of a proficient, trained and experienced pest management company, like a BPCA member, should be enough to satisfy the condition that all other bird management options have been exhausted before lethal action is taken."

General licences were introduced in the 1990s to allow the legal control of bird species of low conservation concern to protect public health and safety, prevent serious damage and disease, and protect plants and wildlife. We soon learned that the removal came after a legal challenge on 13 February by Wild Justice, a small team of campaigners including RSPB's ex-Conservation Director Mark Avery, conservationist Ruth Tingay and TV presenter Chris Packham.

Let's be clear – Wild Justice didn't change the law. They did, however, convince the courts that, for nearly 40 years, the general licences have been issued unlawfully.

There was plenty of outrage on social media, and you've got to feel sorry for Natural England's comms team. Photos and videos of crows attacking newborn lambs were shared widely. BPCA, BASC, the Countryside Alliance and other groups shared statements about the problems the lack of general licences would cause.

The media soon picked up on the story, and we had articles stating the chaos the changes would bring, particularly in the agricultural community. BASC wrote an open letter.

A woman called all farmers heartless murderers on Jeremy Vine's Radio 2 Show. TV presenter, Jeremy Clarkson came out in defence of the old licences in an article titled "Chris Packham's coup – we farmers speak the only language pigeons understand."

In numerous interviews, Wild Justice's Mark Avery repeatedly blamed Natural England, saying that they wanted to give the affected sectors more warning (although in reality, this would have probably put Natural England into a tricky legal situation). Natural England wasn't represented on such programmes, although they had supposedly been invited.

Natural England soon released another statement and the interim measures were launched and explained in detail. BPCA issued advice to all members and affiliates about how to get your individual licences. It's fair to say the system has some teething problems with application forms not opening for everyone and their mailbox filling to capacity but, at the time of writing, things seem to be working correctly.

Natural England also released a proposed timetable for all the new general licences in place, with pigeons and gulls blessedly near the top.

BPCA met with Natural England on Wednesday 1 May to ensure members could continue to protect public health. The key points from the meeting were:

- We have clarified that you can still lethally control birds (to protect public health) by applying for an individual licence and you don't need to wait for a reply to conduct the work
- You don't need a new individual licence every time you start a job, as long as it's not for a different species or reason, not covered in your existing licence

Packham and the crows



Chris Packham found dead crows and his gate glued shut at his home, believed to be left by those angry about the licence changes. The damage to the reputation of people who use these licences was obvious

and the post ended up being retweeted thousands of times.

Next, Chris appeared on Good Morning Britain to tell us all how he and his family have received death threats and packages of human excrement. The Guardian published an article titled "Britain's countryside is dominated by bullies – as Chris Packham has found". The rational debate about bird control is completely lost because of the actions of a few criminal idiots.

As a professional community, we should all be condemning these actions. There are many great conversations to be had about the importance of proper bird management. Actions like these harm all of our businesses.

At the moment, there is no suggestion that any of these horrendous actions were carried out by pest management professionals. However, we should all be challenging this behaviour and we certainly shouldn't glorify it on social media. It does nothing for our businesses and potentially could eventually impede our ability to protect public health.

- BPCA has stressed the importance of prioritising pigeon and gull general licences
- BPCA will see final draft versions of some new general licences and will be a part of the scheduled future consultation into wildlife licences this summer.

In short, things could change again, as soon as this summer. BPCA has a seat at the table with these discussions and we'll be fighting to ensure our members have the appropriate tools they need to protect public health.

In the meantime, if any members have a question about licences, our technical team is on hand to help technical@bpca.org.uk



National England position statement



On the revocation of the licences Marian Spain, interim chief executive of Natural England, has said: “There has been a large amount of media coverage and interest in the decision to revoke

the three general licences. These cover 16 species of birds, including several members of the crow family, Canada geese, some gulls, feral and wood pigeons.

“Natural England announced on Tuesday 23 April that the general licences would be revoked at 11.59pm on Thursday 25 April, as a result of a legal challenge. The decision to revoke the general licences is not a decision we took lightly and we recognise the disruption it has caused. We explored all options available and were left with no choice but to revoke licences. This was disappointing but we fully accept the need to comply with the law.

“Natural England has been working urgently to identify alternative solutions for all those affected, and to convey as clearly as possible the action individuals can take to mitigate disruption. We are committed to working closely with farmers, pest controllers, gamekeepers and other professionals working in the countryside to ensure everyone who needs to control these birds can.

“General licences will be restored as quickly as possible, starting with those species that are most likely to require urgent control. This will mean landowners can continue to take necessary action as they do now, whilst also taking into account the needs of wildlife. The first licences, including one to allow control of corvids which are causing damage to livestock will be ready 26 April. Others will follow in the coming days, according to the timetable shown on gov.uk.

“In the interim, before these general licences are available, where there is no reasonable non-lethal alternative, you can rely on a simple and quick online application system to obtain individual licences to control wild birds. These are accessible on the gov.uk website.

“I recognise, as does my team at Natural England, that these interim measures will cause disruption for licence users. We are working hard to ensure it is kept to a minimum. We also recognise that there may be instances of genuine emergency where immediate action may be taken.

“This is not a ban on control, it is a change to the licences that allow control to take place.

“Our priority at the moment is getting the new licensing regime up and running, so users are acting within the law. We will consult with stakeholders in advance of the wider review of general licensing that will take place later this year.

“Anyone requiring further assistance should visit the gov.uk guidance page.”

Pest controller dies from two wasp stings



A pest control technician in England recently died after being stung twice by wasps. Lee Darker encountered the wasps while servicing an account and successfully removing a wasp nest in a garage.

Lee from Mitie Pest Control, was pronounced dead after the wasp stings triggered an allergic reaction (anaphylaxis). Our thoughts are with Lee’s family, friends and colleagues.

REMEMBER!

- Even if you’ve been stung by a wasp before and not had a reaction, it doesn’t mean you won’t have a reaction next time
- Wear proper personal protective equipment (PPE) when working on stinging insect jobs
- Make sure the suit fits properly
- Be certain to regularly check over the suit for any defects or wear-and-tear.

BPCA and CPA release guidance for identifying and reporting illegal internet sales of pesticides

On the back of the work BPCA and CPA have done with eBay, the associations have created



expertise of both associations to make an easy to follow process for

a set of guidelines to help people report illegal pesticide sales to the relevant authority.

Back in January, BPCA announced that we’d been in collaboration with the Crop Protection Association (CPA) and eBay to help stop illegal sale of pesticides online.

After a successful few months of reporting the illegal activity, BPCA and CPA have created guidelines to help with the smooth and simple reporting of illegal activity.

Dee Ward-Thompson, BPCA Technical Manager, said: “We’ve had a fantastic response to the new reporting mechanism through BPCA/CPA, however we want to make sure everyone understands how and when to make a report. This guidance document uses the

anyone concerned about illegal selling activity anywhere online.

“Both associations want to make it clear that we take the unauthorised sale of pesticides seriously. However, we recognise there’s a risk that if people report legitimate sales, it will slow down the process of dealing with the real illegal listings.”

Only certain pesticide products have restrictions on who can buy and sell them.

The document has sections on:

- Professional use rodenticides
- Amateur use rodenticides
- Other pesticide sales
- Illegal sales of rodenticides and pesticides on eBay.

The document is available in the Member Document area of the BPCA website.





A promotion for Scott

After a rigorous recruitment process, the British Pest Control Association has promoted Scott Johnstone to the position of Marketing and Communications Manager.

Scott is now responsible for developing and managing the marketing and communication activities for the Association. He has been with the Association for nearly three years, starting as the Content and Communications Officer back in 2016.

BPCA Chief Exec, Ian Andrew, said: "We are delighted to be able to promote internally for this role. Scott has already proved he is a significant asset to BPCA and I am certain he will take our marketing and communications to exciting new places."

In his old role, Scott was instrumental in redeveloping the new BPCA website, revamping the now award-winning PPC magazine, and helping to deliver campaigns such as "Be Protected. Professionally."

Scott has a background in developing marketing and communication activities for commercial and not-for-profit organisations.

On the appointment, Scott said: "With PestEx, I've not had much time to process the new job yet, but I'm excited to get started. I genuinely think BPCA's a great association, with a fantastic membership community."

"We've got plenty of work to do to deliver our strategy and make sure our members' voices are heard far-and-wide, but first things first, I should probably do some recruitment for my old role!"

Martin Rose-King is new Servicing Committee Chair

The BPCA Servicing Committee has selected Martin Rose-King, Partner at Bounty Pest Control, as the new Chair. He replaces Howard Taffs, who stepped away from the committee after selling his business. He was selected as replacement Chair during the February Servicing Committee meeting. The Executive Board confirmed the nomination shortly after.



Martin has worked in pest management since 1994 and set up Bounty Pest Control in 1997 and Bounty Consultancy Services in 2017. Bounty Pest Control has been a BPCA member since 2013. Martin has supported the apprenticeship working group and has sat on the Servicing Committee since 2016.

Martin said on his appointment: "I am proud to have been selected as Chair of the Servicing Committee and am looking forward to continued collaboration with like-minded, hardworking members of the committee who volunteer their time to represent our ever-changing industry."

A full interview with Martin will appear in an upcoming PPC magazine.

The BPCA Servicing Committee represents the interests of the service sector of the public health pest control industry, including influencing key decision makers in Government on legislative proposals.

You can find out more information about the Committee by contacting membership@bpca.org.uk



A'maize'ing results says Syngenta as TalonM is launched

A new highly palatable kibbled maize addition to the Talon range of resistance breaking rodenticides was launched at PestEx 2019.

Talon[®]M offers an alternative to tackle choosy rodents, says BPCA member Syngenta.

Syngenta's Daniel Lightfoot said: "In field trials, TalonM successively achieved 100% control of rats, while in mice, it showed an extremely high 90-93% efficacy. In lab trials, the product always resulted in 100% mortality with both species."

With the new 25ppm inclusion of brodifacoum, TalonM proved effective even where mice were known to be resistant against other first and second generation rodenticides. Daniel highlighted that with TalonM it takes just 10-15% of a rodent's daily feed intake to consume a lethal dose, which typically occurs with one feed for rats and a single night visitations for mice.

TalonM will be available solely for professional use, in a 5kg tub or 10kg sack.

PPC Live 2020: Technical excellence in practice

With PestEx done and dusted for another two years, it's time to start preparing for PPC Live 2020.

PPC Live is a one-day pest management event specifically designed for pest management professionals (pest control technicians, surveyors, specialists, company owners, trainees or anyone trying to get into the sector).



bpca.org.uk/ppclive

While PestEx is the city slicker of the pest management event world - PPC Live is going rural. We'll be in the beautiful Yorkshire Event Centre, nestled in the Harrogate countryside.

There will be plenty more information coming up in PPC and online. But for now, make sure you save the date: 11 March 2020. bpca.org.uk/ppclive

WANTED: MEMBER VOLUNTEERS



In much the same way as PPC magazine is a member magazine, PPC Live 2020 is going to be a member event.

We looking for people employed by BPCA member companies to lead some practical sessions throughout the day and potentially present at a seminar.

It's great publicity for you and your business - plus a great way for more advanced pest management professionals to get some meaningful CPD points!

If you're interested in giving up some of your time and sharing your expertise, get in touch hello@bpca.org.uk



Pest Trader and Sentomol combo!

Pest Trader is to integrate the Sentomol range of insect pheromones and traps in its current range of monitoring, trapping and deterrent products. Through these ranges, Pest Trader say they will be able to offer a broader range of pest management solutions in the growing insect monitoring and trapping market sectors. The enhanced Pest Trader product range was on display for the first time at PestEx 2019.

David Loughlin, the founder of Sentomol said: "We recognised the strength of the Pest Trader brand and its international distribution network in the professional pest management market along with the complimentary fit of our product ranges.

"I believe by combining our technical and commercial skills we can offer a stronger portfolio to the market at a time when modern monitoring and trapping technology is moving forward rapidly."

Rob Fryatt, the current owner of Pest Trader added: "David and I have worked together in many ways over many years within the industry and it became clear to both of us this was the optimum way forward to continue to develop the Pest Trader brand and portfolio for the benefit of the industry. In addition, it gives me the opportunity to take a first step back."

What happened to pest control apprenticeships?

A group of BPCA members set up a Trailblazer



Group to look at the development of a general apprentice for pest control. BPCA worked with them to develop the Level 2 Pest Control Technician Apprenticeship standard and assessment plan which is now published on the Government website.

Unfortunately, there are no training providers registered to deliver the apprenticeship programme, due in part to the register being closed to new applicants for the majority of 2018.

BPCA is looking at its position in regards to the apprenticeship.

We're currently exploring what BPCA's role is in developing pest management apprenticeships.

The register for training providers is now open, but there is a process for prospective providers to go through before they are formally approved, so it may be a while before training provision is available.

Once there are training providers in place, there will be an option on the website to discuss their programmes, delivery formats and costs.

Interested in becoming a training provider? Contact Karen Dawes, BPCA Training Development Manager, on karen@bPCA.org.uk

Killgerm to sell Travelwise

BPCA member company, Killgerm has announced the sale of 100% of the shareholding in Travelwise Group Ltd to TPW S.A.S. trading as Travel Planet. This encompasses both the leisure travel and the business travel operations within Travelwise Group Ltd.

Travel Planet is a family-owned French company based in Lille, and in seven years it has grown to become a circa €90m turnover operation with over 80 employees, recently expanding its business overseas.

Rupert Broome, Group Managing Director of Killgerm Group, said: "The decision to sell Travelwise Group has been a very tough one to make, not least because Travelwise Group has been a part of Killgerm Group since 1993. This strategic realignment of the activities of Killgerm Group will now allow us to focus 100% of our future efforts on our manufacturing and supply activities within the pest control sector across the globe through our Killgerm and PestWest businesses. We have a number of expansion opportunities which we are already exploring."

California moves to ban rodenticides

Legislation to ban certain rodenticides in California, USA, is heading to the Assembly Appropriations Committee for approval. Bill AB 1788 would:

- Ban second-generation anticoagulant rodenticides (SGARs) in California
- Ban first-generation anticoagulant rodenticides (FGARs) on state-owned property.

According to the National Pest Management Association (NPMA), the Bill doesn't include an exemption for the use of rodenticides even during a public health emergency. If passed, California would be the first state in the USA to impose an all-out ban of these products. The proposed rodenticide ban has long been in the works and follows California's precedent of introducing the strictest environmental legislation of any state. The NPMA and the Pest Control Operators of California (PCOC) have raised objections, arguing the ban would adversely affect public health.

Jake Plevelich, the NPMA's director of Public Policy, said: "The NPMA and PCOC will continue to work together to oppose AB 1788, which would limit the ability of pest management professionals (PMPs) to protect the citizens of California from disease and destruction attributed to rats and mice. Since the launch of our grassroots campaign opposing AB 1788, over 2,800 messages were sent to California lawmakers, in addition to the numerous phone calls made."

Dee Ward-Thompson, BPCA Technical Manager, said: "California may soon join a small but growing list of areas where pest professionals have no access to rodenticides, limiting their ability to protect citizens from rodent risks. BPCA believes that through the Campaign for Responsible Rodenticide Usage (CRRU), the UK has a reasonable chance of keeping rodenticides for professional use. However, this is a stark reminder that we need to use products correctly."

RIDDOR forms refresh

HSE's suite of RIDDOR forms has been refreshed and moved to a more modern platform to improve user experience.



The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) requires employers, the self-employed and people in control of work premises to report certain serious workplace accidents, occupational diseases and specified dangerous occurrences.

HSE says: "These reports simply let the relevant enforcing authority know that an incident has occurred so they can identify where and how risks arise, and whether they need to be investigated. This allows the enforcing authorities to prioritise their work helping duty holders understand what they need to do to manage risk in the workplace".

The suite of Riddor forms is being refreshed, moving to a more modern platform to improve user experience and give an enhanced look and feel. Reporting requirements remain unchanged.

For guidance on what, and how, to report, visit the HSE website.

20 years in business celebrated by Abate Pest Management



20 years ago Jon Blake decided to set up his own business and called it Abate. He and his wife Jill still own the BPCA member company today.

Jon started to develop the business in Norfolk and Suffolk and, with the help of some ex-colleagues, the company soon began winning contracts in the Cambridgeshire area.

Abate developed into the surrounding counties of Essex, Bedfordshire, Buckinghamshire and Hertfordshire as more contracts were successfully awarded.

In February this year, Abate became

BS EN16636 (CEPA) Certified, meeting the European standard in pest management service. The company joined a group of 110 other UK pest management businesses which have gained this benchmark of quality in terms of public health, food safety, environmental sustainability and economic significance.

The business employs seven service technicians (trained to the Royal Society for Public Health standards) and additional support staff. It is now growing throughout the UK by franchising, with the primary focus to set up fully operational

territories in Essex, Hertfordshire and Bedfordshire. Abate is also talking to several potential franchisees in Leicestershire, Kent, London and Middlesex, with additional interest from other parts of the UK.

Jon Blake said: "The pest control industry has seen lots of change since we commenced trading 20 years ago. It's all been good change, and we constantly strive forward with new processes and legislation, plus keep ahead with all the accreditations and certifications. The 20 years of success couldn't have been done without our fantastic customers and staff, and I want to thank each one for their continued support."

New backer for CRRU UK and rodenticide stewardship



The Campaign for Responsible Rodenticide Use (CRRU) has a new member company, contributing financially and providing expertise to the UK Rodenticide Stewardship Regime. It is Quimunsa, based in Spain, specialising in applied chemistry R&D and manufacturing for the industry.

As a CRRU UK member, the company becomes recognised formally as a participant in the stewardship regime and is represented on the implementation taskforce by Export Manager Mikel Paterson.

By adding to long-standing commitments from existing sponsors, this arrival is timely to support ongoing implementation of stewardship, according to CRRU chairman Dr Alan Buckle.

"Clearly, additional sources of funding are most welcome to help cover what is a major and annually recurring investment in stewardship by rodenticide manufacturers and distributors," he says.

"Clearly, Quimunsa will add their own insights to help maximise the regime's impetus, effectiveness and, ultimately, its success."

More information on CRRU can be found on the Think Wildlife website.

New approach puts unclaimed dividends and shares to good use



BPCA member Rentokil Initial has announced that it is taking a lead in a new initiative to

use unclaimed shareholder dividends and unclaimed shares to fund charitable causes.

While the vast majority of dividends are claimed by shareholders, each year a small but potentially significant percentage of dividends remain unclaimed and a small number of shareholders are untraceable. These 'dormant' funds can be returned to companies after 12 years. At Rentokil Initial, the total value of unclaimed dividends and shares stands at over £1m.

Andy Ransom, Chief Executive of Rentokil Initial said: "After trying our best to contact the relevant shareholders, we will now use the value of any unclaimed shares and

unclaimed dividends to support good causes. But imagine this kind of impact multiplied a hundred times over – it could make a huge difference and I hope other companies will join us. Our new good causes fund – Rentokil Initial Cares - will support our colleagues' own charitable efforts around the globe and good causes in line with our mission to Protect People and Enhance Lives. I would expect us to commit around £250,000 to good causes each year."

CLAIMS AFTER 12 YEARS

If a legitimate claim up to a value of £3,500 (the size of the average holding at Rentokil Initial) is made after the 12-year cut-off point, Rentokil say they will continue to honour the claim and pay the dividends to the shareholder, even if we have used the funds for RI Cares by then.

Spotted: black fox



Brian Downard from BPCA member company Multipest, sent us this amazing picture of this uber-rare black fox.

Spotted somewhere in the East of England, the black fox is a rare treat for any wildlife enthusiast to find.

The frequency of black foxes seen in the UK has been historically low and such sightings appear far less frequently than in other areas of the world – less than 0.01% of the population says blackfoxes.co.uk

SEEN SOMETHING WORTH SHARING?

Send us your photos and you might make it into PPC Magazine or on the website.

 hello@bpc.org.uk

BPCA PestEx...it's a wrap!

PestEx 2019 saw an incredible 29% increase in total visitors as over 100 pest management product and service suppliers descended on ExCeL London in March.

Thousands of people committed to public health pest management explored the 2,860m² exhibitor hall of the British Pest Control Association's show on 20-21 March, meeting suppliers from around the world.

Phil Halpin, BPCA President, said: "It's important that everyone in our industry gets the opportunity to connect and learn from each other. Between the exhibitors, seminars and networking opportunities at the show, I think the pest management show managed to bring together a lot of passion under one roof. Thanks go to all the exhibitors, speakers and the BPCA Staff team for making the show happen."

We've had incredible, record-breaking numbers that were helped, at least in part, by PestEx partnering with the Cleaning Show. Visitors from each show could move freely between exhibition halls, exploring exhibitors and talks from both complementary sectors.

Jo James, BPCA Events Manager, said: "BPCA has never done an exhibition on the same scale as PestEx without an exhibition and conference partner. It's been a massive learning curve, with many tough lessons learned, however from the initial feedback we've heard, I think the show has been a real success. I'd like to thank the staff at ExCeL, Index, Europa and all the volunteering board members who supported the show."

PestEx showcased loads of new products and services from exhibitors from around the world, while 22 speakers from across the sector delivered pest management and better business talks. Several of these talks were standing room only, proving the visitors were committed to learning, improving and continuing professional development.

You'll see many of the speakers popping up in PPC issues this year. We'll also be releasing some of the seminars as podcasts with hand-outs, complete with CPD quizzes.

Ian Andrew, BPCA Chief Exec, said: "I've spoken to so many people over the last two days



WE'VE HAD INCREDIBLE, RECORD-BREAKING NUMBERS...

that I've almost completely lost my voice! PestEx gets all the people passionate about pest management in the UK under one roof and it's an opportunity for us to learn from each other and make meaningful connections. I hope everyone that attended and exhibited got something useful out of the show."

WHAT NEXT?

Registration is now open for our sister show, PPC Live. PPC Live is BPCA's trade exhibition and conference designed for technicians, surveyors and company owners to help improve technical knowledge and to help with their continual professional development.

Similar to PestEx, PPC Live showcases products and services from across the sector.

This event will be held on Wednesday 11 March 2020 in Harrogate. Get the date firmly in your diary!

INTERESTED IN EXHIBITING AT PPC LIVE 2020 OR PESTEX 2021?

Want to book your exhibition space at one of our events? Contact Beth, our sales executive, and she'll get you booked.

 beth@bpca.org.uk

A view from the BPCA stand



8.45am, day 1 of PestEx at ExCeL London and I was looking forward to my stint on the BPCA stand.

The hours went quickly with a series of questions such as "Does the RSPH level 2 in pest management make allowances for dyslexia, and if so how?" and "What's the point of BPCA Registered?", while meeting and greeting a range of BPCA members.

The Resistance Wars arcade game proved to be a great hit and I was pleasantly surprised to see how many members had travelled to ExCeL when their businesses were based several hours away.

The general feedback was positive about the show, members were enjoying meeting suppliers and also networking with each other. It was also good to see new pest controllers finding out more about the industry and how to join. As well as British pest management professionals, I spoke to two international pest management associations who were interested in learning from the work that the BPCA does.

My stint on the stand left me in admiration for my BPCA colleagues who were far more adept in answering a multitude of queries on a broad range of subjects from training, membership, to technical questions. It's all in a day's work for BPCA!

Julia Pitman

BPCA Executive Board member
Beaver Pest Control

New and noteworthy from PestEx 2019 exhibitors

With over 100 exhibitors this year at PestEx, we thought it was worth pulling together some of the headline stories from around the exhibitor hall.

1ENV SOLUTIONS



1env showed off their brand new, extruded Bromadiolone block bait. It comes supplied in a wrapper which prevents slugs and snails getting to the bait while remaining attractive to rodents.

GREENTRAPONLINE



GreenTrapOnline announced its own new generation of intelligent pest monitoring systems. They had live demonstrations of the new system where their own 'running' mouse was set free.

PELSIS



The huge Pelsis stand now incorporating even more brands with the Curtis Gilmore merger.

SERVICEPRO



ServicePro™ Another remote monitoring solution was shown off by ServicePro. ServSensor is the newest addition to the ServSuite family of software.

OCTAVIUS HUNT



Octavius Hunt was showing off smoke generators on their smart looking stand. Free samples and a

competition to win a Samsung Galaxy tablet meant they had a steady stream of visitors over the two days.

BAYER CROPSCIENCE



The Bayer Pest Solutions Team spent time advising attendees at PestEx on a range of pest control management issues, including label changes to insecticide Ficam® D.

SAMI TECHNOLOGIES INT.



Sami Tech showcased its far infrared technology for the insect heat treatments: Sami Tech Heating Bubble.

LANTRA AWARDS



Lantra unveiled the new Level 2 Award in Pest Management qualification.

WOODSTREAM EUROPE

WOODSTREAM™

Woodstream demonstrated the new VLINK™ Connected Rodent Control System. VLINK™ uses long-range wireless technology to provide a rodent control solution. A high voltage shock offers an alternative to rodenticides.



CAPE SPC



CAPE SPC. First-time exhibitors Cape SPC seemed to be having a great time showing off their canine colleague's skills.

PELGAR INTERNATIONAL



PelGar launched its new branding identity at PestEx, which you could see on their new stand.

PESTSCAN BV



PestScan has been working hard to improve its phone app, including improvements to floorplans. The app now supports on-site, moving checkpoints you can move around with your fingertips and the ability to look back on the history of a site.

BPCA



Lots of visitors and exhibitors tried their luck on Resistance Wars – BPCA's very own arcade game. The top scorers took home a PlayStation, beers and shopping vouchers.

DEFENDER BIRD SPIKES



An action-packed stand with a terrifying collection of bird masks.

KILLGERM



The Killgerm stand looked as smart as ever. They had a tombola of incentives to celebrate their Plus Points and a lot of chocolate coins.

SYNGENTA



syngenta Syngenta put pesties to the test with a virtual reality cockroach hunting game.

LODI UK



The huge new Lodi stand made quite the impression and their reaction game helped keep visitors on their toes!

MERLIN ENVIRONMENTAL HEALTH



Merlin was back at PestEx looking amazing with their sleek black minimalistic stand design. The well-behaved pooches got plenty of attention from visitors.

BASF



BASF BASF always bring something fun for PestEx attendees. This year they challenged people to build their puzzle cubes as quickly as possible.

BARRETTINE ENVIRONMENTAL HEALTH



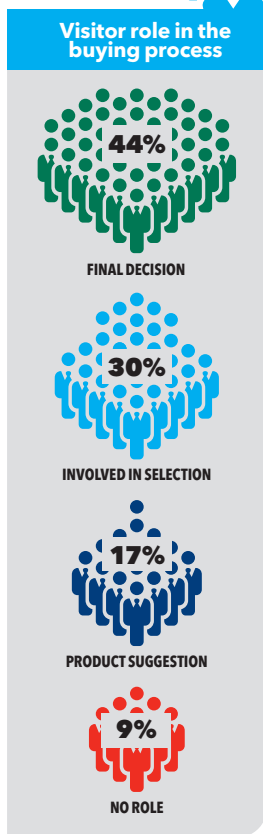
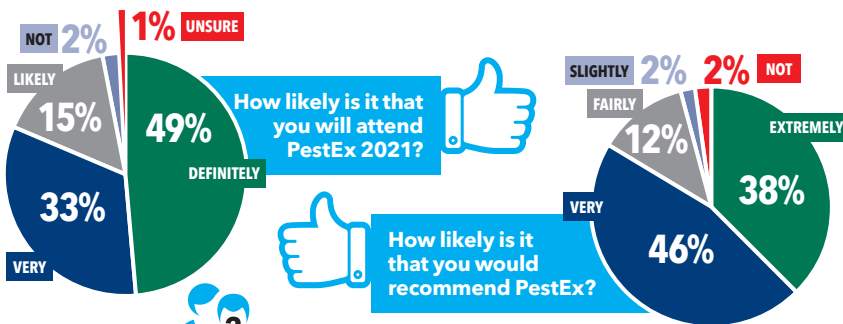
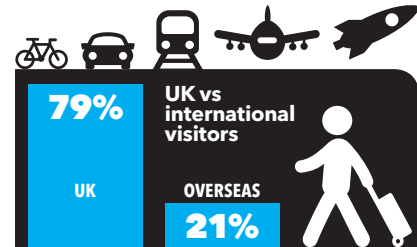
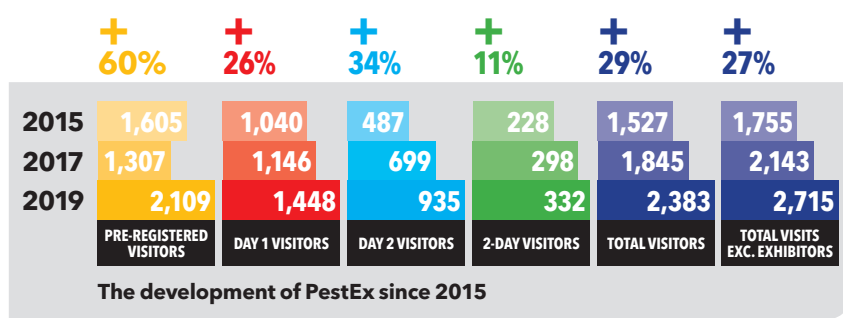
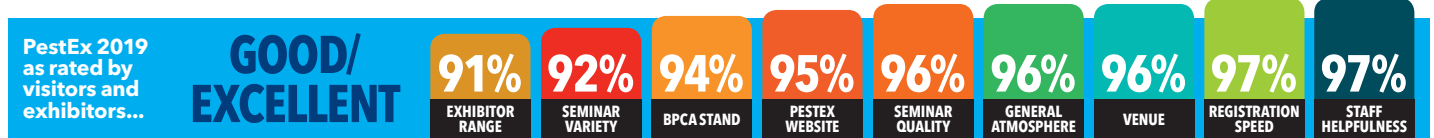
Something between a phonebox and Crystle Maze, the Barretttine ticket collection game was a lot of fun and plenty of freebies were won.

PestEx in pictures...



Spot yourself in the official PestEx video!
bpc.org.uk/v/PestEx19

...and in numbers!



Visitor role in pest management

| | |
|---------------------------|-------|
| INSECT CONTROL | 1,352 |
| RODENT CONTROL | 1,311 |
| BIRD CONTROL | 994 |
| FOOD INDUSTRY | 707 |
| FUMIGATION | 566 |
| SALES AND MARKETING | 500 |
| WILDLIFE MANAGEMENT | 437 |
| TRAINING | 363 |
| AGRICULTURAL | 304 |
| CONSULTANCY | 287 |
| FACILITIES MANAGEMENT | 282 |
| COUNCIL / LOCAL AUTHORITY | 272 |
| ADMINISTRATION | 229 |
| NEW TO THE INDUSTRY | 182 |
| SPECIFIER | 49 |
| AGGREGATE TOTAL | 7,835 |



“ I get to meet partners easily. There's no need to travel to different countries. The seminars were extremely informative and there was a good range of speakers. ”

The best thing about PestEx was being able to browse new innovative products and get fresh ideas towards solving current customer issues. Everything one could ever need in pest control under one roof. A great show for anyone thinking about getting into pest control, newly starting their business or for seasoned pesties. ”

Save the date!
PPC LIVE
11 March 2020
Yorkshire Event Centre, Harrogate
bpc.org.uk/ppclive

British Pest Management Awards 2019 wrap-up



The pest management show hosted the second ever British Pest Management Awards (BPMAs) announcing the 2019 winners. Held in the Technical theatre of PestEx, in the London ExCeL on 20 March 2019 the awards ceremony was hosted by television ecologist, Mike Dilger. We take a look at the big winners of PestEx 2019.

The British Pest Management Awards were created to celebrate excellence in pest management and recognise the

invaluable contribution companies and individuals can make to our sector.

With more entries than before and an impressive shortlist of entrants from across the UK, the industry-led judging panel had their work cut out for them picking this year's winners.

Nine winners and two highly-commended awards were presented to companies and individuals from around the UK.



2019 JUDGING PANEL

A special thanks goes to the members of our cross-industry judging panel, who helped make the awards possible.

Kevin Higgins, chair, BPCA

Anne Godfrey, NPAP CIEH

Steve Hallam, NPTA

Frances McKim, Pest Magazine

Henry Mott, CEPA.



CONTEGO ENVIRONMENTAL SERVICES COMMUNITY INITIATIVE OF THE YEAR

For many years Contego - which has a team of 45 people operating across the UK and its headquarters in Chilton Industrial Estate, Ferryhill - has supported small local projects for clients, charities and educational institutions and, given staff time and resources to help Cancer Research UK.

Picking up the award, Michael said: "We try to give back to the community with the work we do, and I think it's just really important to support them. "We're really proud to win the award and giving back to the community is something everyone should be doing more of."

As well as charity work, Contego has welcomed its first apprentices to the company and at the end of last year, they also became Living Wage accredited. Michael added: "Pest control is a profession and we are committed to paying our staff a fair pay for a day's work. Living Wage is the first step and it is a standard we are very proud to achieve."



CLEANKILL PEST CONTROL COMPANY OF THE YEAR

Jonathan Whitehead, Operations Director of Cleankill Pest Control, collected the award. He said: "It's a fantastic honour and we're absolutely chuffed to bits because it's something that we feel we deserve, and we've worked hard to get."

In December 2017, Cleankill was the first pest control company in England to be awarded the Gold Investors in People accreditation, plus last year the company picked up Responsible Business of the Year at the Gatwick Diamond Business Awards and Best Employer at Croydon Business Excellence Awards.

Paul Bates, Managing Director of Cleankill Pest Control, said: "We strongly believe that our values, ethos and focus on customer service before sales sets us apart from other businesses. When it comes to our services, we are constantly evaluating what we do and how we can improve."



LANCASTER CITY COUNCIL, UNBUGGED LOCAL AUTHORITY OF THE YEAR TEAM OF THE YEAR

In 2017 the local authority rebranded its commercial pest control work as 'Unbugged' with the aim of generating additional high-value work in order to become cost-neutral and ultimately a social enterprise.

Since then the team's enthusiasm and knowledge have seen them achieve an encouraging rise in income and a high standard of service, with the overall customer satisfaction rate never dropping below 98%.

Sue Clowes, Pest Control Manager at Lancaster City Council, said: "They are always willing to help each other out when one of them is struggling, but still retain a healthy and friendly rivalry. Although the team members have worked in the pest control service for many years, they remain passionate about their work and are never complacent."

**KEN VIGAR
SAFEGUARD PEST CONTROL AND
ENVIRONMENTAL SERVICES**

UNSUNG HERO



Pennie Gadd, Managing Director of Safeguard said: “Ken originally worked in the City of London for a large insurance corporation but retired to take up a part-time job so that he could look

after his wife Maggie who was suffering from ill health. He saw an advert in the local paper for a storeman/odd job man and as the only applicant, he immediately got the position.

“Ken is a wonderful man who is kind, funny, accurate and never misses a day’s work - in fact, he’s had only one day off due to illness since he joined us. Everybody absolutely adores this humble man, and as an employee, he goes above and beyond his duties without causing a fuss.”

Ken said: “It feels quite surreal to have won and it’s so unexpected because it’s such a vast organisation and I really am only a part-time worker.”

**GEORGE RICKWOOD
ROKILL PEST CONTROL SERVICES
YOUNG TECHNICIAN OF THE YEAR**



Dave Perrett, Operations Manager at Rokill, who nominated the 27-year-old for the award, said: “Since joining Rokill, George has been highly committed to training and development and has always made

sure he takes every opportunity to gain CPD points and learn more.

“George has a quiet, professional manner that our customers love and communicates effectively to highlight the work that needs to be done to maintain pest free conditions”.

George - who joined Rokill in 2014 - was at the ceremony to collect his trophy, he said: “I’m over the moon and really humbled to have received the award. “It was a bit unexpected, but I’ve worked really hard and hard work does pay off.”

**PHIL MARTIN
PGM & SON PEST CONTROL
SOLE TRADER OF THE YEAR**

PGM & Son Pest Control was founded just over 12 months ago by Phil Martin, and since then it has gone from strength to strength.

PGM & SON



INSPECT. DETECT. PROTECT.

Providing pest control solutions to individuals and businesses across Herefordshire, the company offers a variety of techniques including pesticide-free and organic solutions, preventative and proofing works as well as more traditional methods.

Phil said: “As we are a local, family run business, we genuinely care about our community and the county. Residents of Herefordshire who deal with PGM & Son recognise this in their support of our business by coming back to us in the future and referring us to others.

“We don’t just offer pest control treatments, we offer preventative advice and solutions, and importantly, we give customers our time - a rare commodity in this day and age.”



**NBC ENVIRONMENT
INNOVATION OF THE YEAR**

The award recognised the company’s development of a new robotic tool for use within their bird control service.



NBC Environment saw the potential of an existing device, the Mk1 Rofalcon - a fixed wing, duct fan drone created to train falcons to hunt - to be adapted to the colours and flight profile of a peregrine falcon to act as an extension to proven falconry techniques.

Peter Goodrum, of NBC Environment, said: “By using the two we can maintain a predatory response, as downtime is inevitable, for feeding and inclement weather, the drone can be used between flights and withstand crosswinds and rain.”



**ABATE
SMALL COMPANY OF THE YEAR**

During the last year Abate, which employs 11 people, has seen a significant uplift in contracts, especially businesses within the food chain, as well as housing associations and landlords.

Jon Blake, Managing Director of Abate Pest Management Services - who picked up the award - said: “Following years of successful growth, training plans, method statements, health and safety systems and marketing campaigns, Abate is now firmly driving forward the next stages of expansion with franchising. This will lead to additional growth and opportunities for other pest controllers to be part of a new centralised administration, sales and marketing system.”

Abate Pest Management Services, which provides domestic and commercial pest control services for homes and businesses across East Anglia, is also heavily involved with charity work throughout the local area. Last year the firm helped to raise £7,000 for various causes by supporting their local family festival, including Norfolk’s The Raptor Trust, working to treat sick and injured birds of prey, plus educating the public on the need to protect and conserve both birds of prey and their habits.



**DR JONATHAN WADE
LIFETIME ACHIEVEMENT**



Dr Jo Wade picked up his award at the BPMA ceremony at PestEx. You can read more about his achievements in PPC94 bpca.org.uk/ppc94



An online CPD quiz based on this feature is now available on the BPCA website. BPCA affiliates can take a CPD quiz at any time bPCA.org.uk/cpd-quiz or sign up at bPCA.org.uk/affiliate



Steve Broadbent from Ensystex is back in PPC for part two of his cockroach article. Steve's talk went down a storm at PestEx 2019 with some people calling it the best seminar they've ever heard. This time we're talking about what makes for a precise and targeted baiting programme.

Creating excellence in cockroach baiting programmes

A RECIPE FOR ROACHES

SPEED VIEW

- To be attractive, bait must contain nutrients that are both limited and unique in the urban area
- Cockroaches select nutrients to correct deficiencies from feeding on unbalanced food
- Baits should provide a complete and balanced food component to optimise success
- Cockroaches eat cockroach faeces to gain nutrients necessary for survival
- Slower actives provide increased access to vomitus and improve secondary mortality
- Resistance in a cockroach population may increase if baits fall short of being lethal.

This is the second of two articles on cockroaches by Steve.

Look out for 'Understanding cockroach foraging behaviour' in the last issue of PPC

bPCA.org.uk/ppc94

Cockroach baiting has become the primary method of control in urban cockroach management programs. Baiting offers a precise, targeted solution that employs significantly lower levels of toxicant, in keeping with the principles of Integrated Urban Pest Management. It is also perceived as offering a lower risk approach to pest management.

COCKROACH NUTRITION

For a bait to be attractive when placed in urban areas with many competing food sources, it must contain nutrients that are both limited and unique in the environment. The nutritional value of foods has a very significant impact on cockroach development and reproduction.

Given the relatively simplistic nerve structure of cockroaches, with the brain a supra-oesophageal nerve ganglion (cluster of nerves) formed by the fusion of three pairs of ganglia; it is surprising to learn that cockroaches are actually able to self-select the nutrients they require to correct nutrient deficiencies that arise from feeding on unbalanced food sources.

Carbohydrates are mostly consumed during the first week after hatching, ie during the first stadium (moult), with lesser amounts required in each subsequent stadium. In contrast, protein is required during all life stages, though in a lower proportion.

When cockroaches were reared in an environment where they were able to self-select the nutrients required, they grew optimally by selecting the requisite nutrients for each nymphal development stage.

It was also reported [1] that when nutrient deficiencies exist in a food source, German cockroaches (*Blattella germanica* Linnaeus) prefer to self-select an unbalanced food, provided it will compensate for the nutrients they are lacking from a more balanced food.

Cockroaches proceed to distinguish food of different nutritional value through a process known as specific nutrient learning. They learn which nutrients their body requires most and then seek these out. Associative learning has also been reported in the American cockroach (*Periplaneta americana* Linnaeus), where the insects were able to associate the smell of a food and associate this to the proteins present and required.

The consequences of this are most important in the development of a cockroach bait since it makes it vital to provide a complete and balanced food component, containing all the nutrients required by the cockroaches, to optimise success.

Typically, three macronutrients are included in the matrices of a quality cockroach bait: carbohydrates, lipids and proteins, though it is essential to include further ingredients to provide a complete dietary food source. Sadly, many baits are based on sugars only which leads to less than optimal results in the field.

Attractants and feeding stimulants are also important with the former required to draw the cockroaches to the bait, and the latter ensuring the cockroaches consume larger amounts of the bait to achieve increased toxicant uptake. Other additives are added to prolong the lifespan and retain moisture content.

Studies have shown some baits are more attractive to the cockroaches, and cockroaches are drawn to them by preference. However, the cockroaches eat significantly less since they feed on these baits for a shorter time period. This is why the targeted addition of feeding stimulants is important.

FORAGING BEHAVIOUR

Cockroaches have evolved to exploit our modern urban environments where the structures we build provide a plethora of harbourages, warmth, food and moisture. By understanding the cockroaches foraging and social interactions, we can maximise bait placement.

You can read a full article on foraging behaviour by Steve in PPC94 bpc.org.uk/ppc94

TOXICANT TRANSFER

The transfer of cockroach bait toxicants has arisen through the development of improved bait technologies. At the same time, a degree of mythology has arisen surrounding toxicant transfer, that is often not supported by scientific data.

Toxicant transfer is dependent upon cockroaches that have fed upon a bait, contaminating their environment with toxicant laden faeces and vomitus,

which is then consumed by other cockroaches. This transfer or secondary distribution of the toxicant is most important in the control of the more sedentary life stages, specifically gravid females and early stadia nymphs [8].

Coprophyagy refers to the consumption of cockroach faeces together with proctodaeal feeding (from the anal region). Coprophagy is essential for cockroach survival since it provides for transfer of hindgut symbionts and other nutrients. Coprophagy is evident in all life stages, though it is most important for first stadia nymphs. Kopanic et al showed that nymphs that were denied access to faeces died 60 times faster than those able to partake in coprophagy; with female faeces being more nutritious than male faeces [9].

Cockroach faeces contain pheromones that serve to aggregate cockroaches in their harbourages, allowing early stadia nymphs and gravid females to secure nutrients without venturing from their harbourage. As cockroaches mature, their dependence on coprophagy as a food source diminishes.

Although faeces from adults fed on baits are clearly toxic to cockroaches, it is most likely that it is only a significant factor in the control of the early stadia nymphs. With later life stages there is little to suggest that they prefer faeces to normal food or that concentrations of toxicant in adult cockroaches are going to provide control in a timely fashion [10].

Emetophagy is mostly reported with early stadia cockroaches feeding on female vomitus. Emetophagy is not essential for survival, but cockroach nymphs seem to really enjoy female vomitus.

Toxicant laced vomitus is most effective when it is fresh, and the activity declines rapidly over time [11]. With faster acting bait actives, poisoned cockroaches will often enter into convulsions and vomit before returning to the harbourage.

In theory, slower acting actives, eg (s)-indoxacarb, will provide increased access to vomitus and improved secondary mortality. Like coprophagy, the practical effects seem to be mostly towards killing the early stadia nymphs.

CONTINUED >

A RECIPE FOR ROACHES

Necrophagy refers to the consumption of cockroach cadavers or body parts. It was originally considered to be an important aspect of toxicant transfer since it is a behaviour that is frequently observed during the laboratory rearing of cockroaches. It has subsequently been shown that the level of necrophagy is dependent on the quality and quantity of food available, and the density of the cockroach population.

Necrophagy really only occurs when cockroaches are deprived of food.

When other foods are available, it is highly unusual to find cockroaches partaking in necrophagy and, from a practical perspective, its impact should be considered negligible or non-existent. Cockroaches in a natural population are more likely to utilise their own body resources, stored fats, before considering necrophagy. In one series of behavioural assays, cockroaches preferred nearly all alternative foods to dead cockroaches, regardless of whether the cadavers contained a toxicant or not. And when cockroaches were provided a choice between an intoxicated cadaver and food, mortality declined significantly [11].

From the above we can see that, while coprophagy and emetophagy play a role in the elimination of the early life stages, they are of little significance in

the control of adults and, contrary to frequently espoused advice, necrophagy has no practical control benefit. This is supported by studies that have shown that the levels of secondary mortality decreased from 100% in first stadium nymphs to as low as 12.1% in adult males.

Field strains of cockroaches were also much less susceptible than laboratory reared strains, with only 9.2-16.6% secondary mortality occurring among third and fourth stadia field strain nymphs [12].

The opportunity for food choice due to low levels of sanitation reduces the probability for cockroaches to feed on bait-killed cockroaches or their excretions. In addition, field populations may not eat as much bait as those under laboratory conditions due to the more diverse food sources available, which dilutes the active concentration found in donor cadavers, faeces, or vomitus. Thus, in the field, the role of secondary kill may be lower than that tested under laboratory conditions.

In any event, cockroach debris (cadavers, body parts, faecal pellets) should be removed, since it is highly allergenic to sensitive individuals.

Toxicant transfer is important for the control of early stadia nymphs but is unlikely to play a significant role in the control of later stadia nymphs or adults.

RESISTANCE

There are few documented scientific reports of control failure of cockroach bait products, containing the more recently developed active constituents, due to physiological resistance. When cockroaches feed on a quality bait, the active is consumed at significantly higher doses than those required to kill.

The frequency of a resistance gene within a German cockroach population may increase if some cockroaches survive sub-lethal exposure to baits. This may occur through the ingestion of lower doses of insecticide from cockroach excretions, the use of less palatable baits, or when feeding is interrupted because of cockroach aggression behaviour.

A recent study [13] followed reports of control failure in an apartment in Puerto Rico that had been heavily baited for several years with indoxacarb, fipronil and hydramethylnon gel baits.

This study reported three novel findings:

- The first evidence for hydramethylnon resistance in any insect
- Extremely high levels of indoxacarb resistance in a field population
- Reduced secondary mortality in an insecticide-resistant, field-collected strain of *B. germanica*.



“When other foods are available, it is highly unusual to find cockroaches partaking in necrophagy and, from a practical perspective, its impact should be considered negligible or non-existent.”

Image: Psychonaught



A german cockroach that underwent ecdysis. It is teneral until its cuticle hardens.

It was still noted though that bait formulations may remain effective, even when dealing with moderately resistant cockroach populations. The difference in mortality between an insecticide-susceptible strain and the resistant strain isolated in the apartment was much less in bait-feeding tests than from topical application, with most adult resistant cockroaches dead by the end of the baiting trials.

This is related to the fact that bait actives such as fipronil, hydramethylnon and indoxacarb are more toxic by ingestion than by topical application, with indoxacarb activated by insect enzymes.

Also, as mentioned above, ingestion can deliver significantly greater dose the actives to overcome low to moderate resistance. For example, it was estimated that baiting delivered 600 times the LD50 and nearly 400 times the LD90 of fipronil, which is more than sufficient to overcome the 16-fold resistance reported with the resistant strain.

The key aspect with cockroach baiting is to ensure that plenty of bait is made available, especially when dealing with serious infestations. Selecting a bait that provides high palatability is of primary importance for optimal performance in eliminating cockroach aggregates; with the elimination process aided by the placement of multiple small bait spots in close proximity to cockroach harbourages, and the transfer process' effects on the early stadia nymphs.



[1] Raubenheimer, D. and Jones, S.A. (2006) Nutritional imbalance in an extreme generalist omnivore: tolerance and recovery through complementary food selection. *Animal Behaviour* 71, 1253-1262.

[2] Durier, V. and Rivault, C. (2001) Effects of spatial knowledge and feeding experience on foraging choices in German cockroaches. *Animal Behaviour* 62, 681-688.

[3] Collett, T.S. and Graham, P. (2004) Animal navigation: path integration, visual landmarks and cognitive map. *Current Biology* 14, R475-R477.

[4] Lihoreau M., Rivault C. (2011) Local enhancement promotes cockroach feeding aggregations. *PLoS ONE* 6(7): e22048. doi:10.1371/journal.pone.0022048

[5] Demark, J.J., Kuczek, T. and Bennett, G.W. (1993) Laboratory analysis of the foraging efficiency of nymphal German cockroaches (Dictyoptera: Blattellidae) between resource sites in an experimental arena. *Annals of the Entomological Society of America* 86, 372-378.

[6] Durier, V. and Rivault, C. (2002) Importance of spatial and olfactory learning on bait consumption in the German cockroach. In: Jones, S.C., Zhai, J. and Robinson, W.H. (eds.) *Proceedings of the Fourth International Conference on Urban Pests, Charleston, South Carolina, 7-10 July 2002*. Pocahontas Press, Blacksburg, Virginia, pp. 59-64.

[7] Durier, V. and Rivault, C. (2003b) Improvement of German cockroach (Dictyoptera: Blattellidae) population by fragmented distribution of gel baits. *Journal of Economic Entomology* 96, 1254-1258.

[8] Durier, V. and Rivault, C. (2000) Secondary transmission of toxic baits in German cockroach (Dictyoptera: Blattellidae). *Journal of Economic Entomology* 93, 434-440.

[9] Kopanic Jr. R.J., Holbrook, G.I., Sevala, V. and Schal, C. (2001) An adaptive benefit of facultative coprophagy in the German cockroach *Blattella germanica*. *Ecological Entomology* 26, 154-162.

[10] Appel, A.G., Sims, S.R. and Eva, M.J. (2008) Factors affecting coprophagy and necrophagy by the German cockroach (Dictyoptera: Blattellidae). In: Robinson, W.H. and Bajomi, D. (eds) *Proceedings of the 6th International Conference on Urban Pests, Budapest, Hungary*, pp. 139-142.

[11] Buczkowski, G. and Schal, C. (2001) Emetophagy: fipronil-induced regurgitation of bait and its dissemination from German cockroach adults to nymphs. *Pesticide Biochemistry and Physiology* 71, 147-155.

[12] Changlu Wang, Yang, X., El-Nour, M.A. and Bennett, G.W. (2008) Factors affecting secondary kill of the German cockroach (Dictyoptera: Blattellidae) by gel baits. In: Robinson, W.H. and Bajomi, D. (eds) *Proceedings of the 6th International Conference on Urban Pests, Budapest, Hungary*, pp. 139-142.

[13] Ko, A.E., Bieman, D.M., Schal, C. and Silverman, J. (2016) Insecticide resistance and diminished secondary kill performance of bait formulations against German cockroaches (Dictyoptera: Blattellidae). *Pest Manag Sci.* 2016 Sep; 72(9): 1778-1784.

you might miss it

Mites are small. Really small. Infestations are notoriously hard to spot until a site has a massive problem with a large population of mites. Can you confirm if your customer has mites early? Fera is a crop health researcher looking for practical solutions for protecting food stores using science. They've put together an article for PPC to help pest management professionals monitor for these tiny pests.



Blue mite

**...THIS
COSMOPOLITAN,
HIGHLY ALLERGENIC
SPECIES CAN INFEST
ALMOST ANY FOOD
USED BY MAN OR
BEAST.**

Storage mites are important pests for the food and feed industries as they can infest a variety of commodities, especially those based on cereals, at every step throughout the food chain, from raw materials to finished goods.

Mites are typically very small (about 0.5mm), translucent and difficult to detect especially at an early stage of infestation when numbers are low.

Consequently, an infestation often goes unnoticed until numbers have increased dramatically and damage to produce and products become evident. This can happen rapidly as their short development life cycle, at optimum conditions, favours rapid population growth and development.

In addition, many mites can tolerate starvation for long periods by forming hypopi which is a diapause stage. This life stage is almost immobile and very resistant to desiccation. Thus, mites can survive for months under adverse conditions in cracks in floors or walls and in processing and packaging machinery.

The damage caused by a mite infestation can lead to direct financial losses through deterioration of food quality, downgrading of products, end-user complaints and rejection of stock. In addition, storage mites are strongly allergenic and there is growing evidence that mites and their by-

products cause an increase in allergic responses in human and companion animals, and can contribute to poor performance in livestock. There are also reports of anaphylaxis and anaphylactoid reactions due to ingestion of mites from mite-contaminated food.

In the UK, most of Europe and Australia, there is no tolerance of live insects in traded grain, however, thresholds for mites vary and informal limits for many pet foods are below 10 mites per kilogramme. The Codex standard (CODEX STAN 199-1995) for wheat and durum wheat intended for processing for human consumption states that it should be 'free from abnormal flavours, odours, living insects and mites.'



An online CPD quiz based on this feature is now available on the BPCA website. BPCA affiliates can take a CPD quiz at any time bpca.org.uk/cpd-quiz or sign up at bpca.org.uk/affiliate

Ecological parameters for some important mite species

| Species | TEMP RANGE °C | TEMP OPTIMUM °C | RELATIVE HUMIDITY MIN(%) | RELATIVE HUMIDITY MAX(%) | FECUNDITY (NUMBER EGGS/FEMALE) | LONGEVITY (DAYS) |
|----------------------------------|---------------|-----------------|--------------------------|--------------------------|--------------------------------|------------------|
| Acarus siro | 2.5-31 | 20 | 63 | 80 | 230 | 30 |
| Lepidoglyphus destructor | 3-34 | 25 | 62 | 90 | 150 | - |
| Tyrophagus putrescentiae | 8.5-36 | 25 | 69 | 85 | 500 | 62 |
| Thyreophagus entomophagus | 3-32 | 20 | 75 | 85 | 156 | 47 |
| Carpoglyphus lactis | 3-35 | 20 | 60 | 80 | 278 | 20 |

Monitoring methods

Early detection and eradication of storage mites are paramount to ensure quality, value and reputation. At Fera, we've developed a package of services tailored to the customers' needs so that pest management companies can make informed decisions to limit the effects of mite infestations and maintain product quality.

MITE TRAP

This trap is specifically designed and developed for monitoring storage mite pests.



It contains an attractant made from non-toxic ingredients, allowing its use in a diverse range of premises and environments.

The trap detects live mites and other storage pests and provides an early indication of problem areas pinpointing hidden mite infestations and refuges. This gives the customer the opportunity to target remedial treatments and resources for best effect. Subsequent routine monitoring of premises for mites allows the effectiveness of control/hygiene measures to be assessed. Traps are supplied 'ready to use' with instructions.

You can then return the monitor to Fera and the numbers and types of mites collected are carefully assessed by our trained personnel. You'll then get sent a detailed report, including guidance on which mites are likely to cause a problem and where remedial action is required.

FLOTATION TEST

The Fera flotation test was developed to identify contaminating matter of animal origin (eg whole or fragmented mites and insects, or rodent hairs) in a wide range of food, feed, veterinary and dust samples and is AOAC accredited.

Mites species in the UK

Four main factors regulate mite numbers in stored products and food processing areas:

- Temperature (3-35°C)
- Moisture content of the medium >12.8%
- Food
- The intrinsic rate or fecundity of the species.

Grain mite (*Acarus siro*)



If the temperature and humidity are favourable this cosmopolitan, highly allergenic species can infest almost any food used by man or beast.

Since it can live on fungi mouldy food can also be infested. Foodstuffs infested with this species can acquire a sickly sweet smell and an unpalatable taste.

Glycyphagid mites (*Glycyphagus domesticus* and *Lepidoglyphus destructor*)

Cosmopolitan species which infest a range of products and are usually the first to invade a probable mite habitat and are therefore an indicator of further infestations to come.

Flour mite (*Thyreophagus entomophagus*)

Commonly infest flour and cereal products.



Mould or cheese mite (*Tyrophagus putrescentiae*)

A cosmopolitan, synanthropic species which is also capable of infesting a wide range of products especially those with a high fat or protein content.

Dried fruit mite (*Carpoglyphus sp.*)

Infest a wide variety of foods - milk products, dried fruits, honey, beer, wine and animal feeds.

Predatory mites

Predatory mites such as those in the family Cheyletidae and Mesostigmata are normally found where there is a well-established infestation of storage mites upon which they feed and as such can be indicators of pest mites.

CONTINUED >

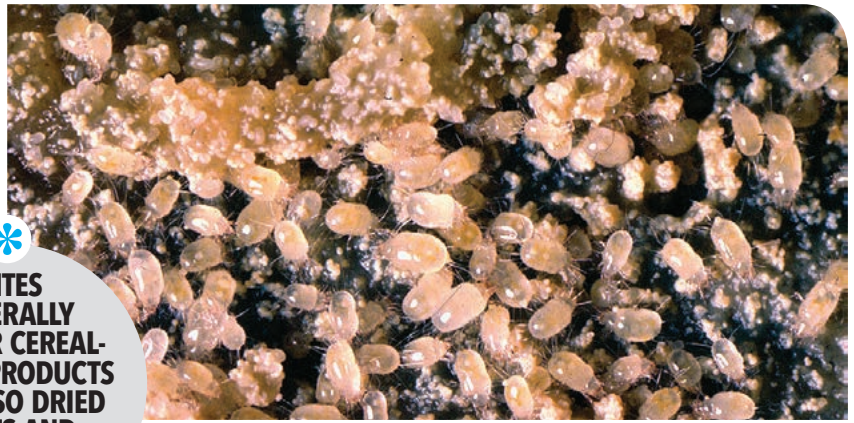
you mite miss it

It is the single most accurate and effective method of confirming the presence of mites in commodities and can easily differentiate between dead and live mites. The flotation test can be used to assess mite infestations in a diverse array of products such as:

- Fine powders (eg flour, dried milk, yeast)
- Granular materials (eg animal feed, wheatgerm)
- Compacted and pelleted materials (eg animal feed pellets, dairy nuts, pet food)
- Seeds and grain (eg wheat, barley, oilseed rape, maize, soya, rice)
- Dried fruits
- Dust (eg house dust, mattress dust, floor sweepings etc for the detection of house dust mites)
- Plant material (eg hay, straw, wood or paper-based animal bedding)
- Flower bulbs (eg tulips, hyacinths)
- Veterinary samples (eg animal dander).

Samples are suspended in a careful balance of aqueous alcohol, acids and salts before percolating kerosene upwards from the base. Any animal matter present is collected on a filter paper, allowing easy examination away from the bulk sample.

MITES GENERALLY PREFER CEREAL-BASED PRODUCTS BUT ALSO DRIED FRUITS AND DRIED PLANTS.



PACKAGING TESTS

The risk of infestation in packaged commodities is likely to vary according to several factors:

- **The nature and constituents of the product**
Some foods are more prone to infestations than others. Mites generally prefer cereal-based products but also dried fruits and dried plants. However, species such as Tyrophagus also infest products with a high fat and protein content such as linseed, dried egg, groundnuts, cheese and ham.
- **The form of packaging**
Packaging is usually tailored to fit the product and designed to last throughout the storage life of the product. The integrity of the packaging and the materials used are important considerations in preventing infestations. Mites are capable of passing through perforated plastic material with perforations of less than 80 microns in diameter.
- **Storage conditions and length**
The more suitable the conditions for

mite development the more likely the products are at risk. Mites will develop faster at higher temperatures and most infestations are due to prolonged storage under less than optimal warehouse conditions.

- **The product's processing journey**
A product can be infested at any stage from initial raw product to finished goods and during its transit and storage along the way.
- Fera can offer packaging penetration tests to help mitigate these risks of infestation. The tests consider the nature of your product, the form of packaging, storage conditions and length of time in storage, with a range of potential pests.

FIND OUT MORE

If you'd like to find out more about Fera's monitoring products contact them directly.

 mites@fera.co.uk

Bugged by insurance?

Cliverton
right for your insurance



The pest control insurance specialists with over 40 years experience

Covering...

- Pest Control
- Vermin Control
- Bed bug detection
- Use of rifles and shotguns
- Deer stalking
- Gamekeeping
- Ghillies / Water Bailiffs
- Bird scaring
- Use of birds of prey
- Public handling of falcons
- Humane destruction
- The use of dogs/ferrets

For...

- Public/Products Liability
- Employers' Liability
- NEW** Permanent Loss of use of Detection Dogs
- Professional Indemnity
- Business Interruption
- Personal Accident

NEW Legal Expenses Cover now available



For a no obligation quotation contact us today!

01328 857921 | info@cliverton.co.uk | www.cliverton.co.uk

Cliverton, 15-17 Norwich Road, Fakenham, Norfolk NR21 8AU  

Cliverton is a trading name of Lycett, Browne-Swinburne & Douglass Ltd, which is authorised and regulated by the Financial Conduct Authority (FCA No. 310623)

CONSULTANT STORIES

Wax moths: communal pupal chambers and inquilines

Image: Patrick Clement

BPCA Consultant member John Lloyd of Independent Pest Management and Insect Consultancy is back in PPC, giving us advice on how to spot and treat for these rare pests.

Signs of *Aphomia sociella* (wax moth) activity recently caused concern during recent refurbishment work when galleries of webbing were found below a wooden window sill.

With their distinctive shape and the segmentation of Wax moth pupal chambers, pupation galleries are a characteristic sign of *Aphomia sociella* activity.

The communal galleries are formed when mature larvae migrate to a suitably safe and dry location to develop in a communal pupation site. Pupation galleries can be found in soft substrate; either in or under soft wooden structures (such as window sills), or inside the structure of old beehives.

A number of wax moth species occur, but *Aphomia sociella* usually prefers to develop in bumblebee nests, as well as developing in honey bee hives or even *Vespula* wasp nests.

Aphomia sociella are inquilines (that is they will lodge inside their hosts nest and live commensally). Eggs are usually laid in the burrows of bumblebee nests and the larvae then feed upon wax, pollen,



Image: gailhampshire



Above: *Aphomia sociella* larva
From left: Adult *Aphomia Sociella* moth; pupation galleries

nectar, honey, dead bumblebees or even live bee larvae.

When fully developed, mature larvae leave the nest to pupate in a sheltered area nearby.

Communal cocoon sites can have hundreds of pupae present and the pupae/webbing is usually firmly attached to the substrate so they are difficult to shake loose.

Larvae may cause localised damage by gnawing the substrate to create the communal pupation site. Consequently, localised damage to woodwork may sometimes occur.

When they emerge, the adult moths are generally brown in appearance but they are very variable in form. The species is sexually dimorphic.

Adult moths are not pests inside houses but do present a risk to apiarists and owners of commercial beehives.

HAD AN UNUSUAL JOB?

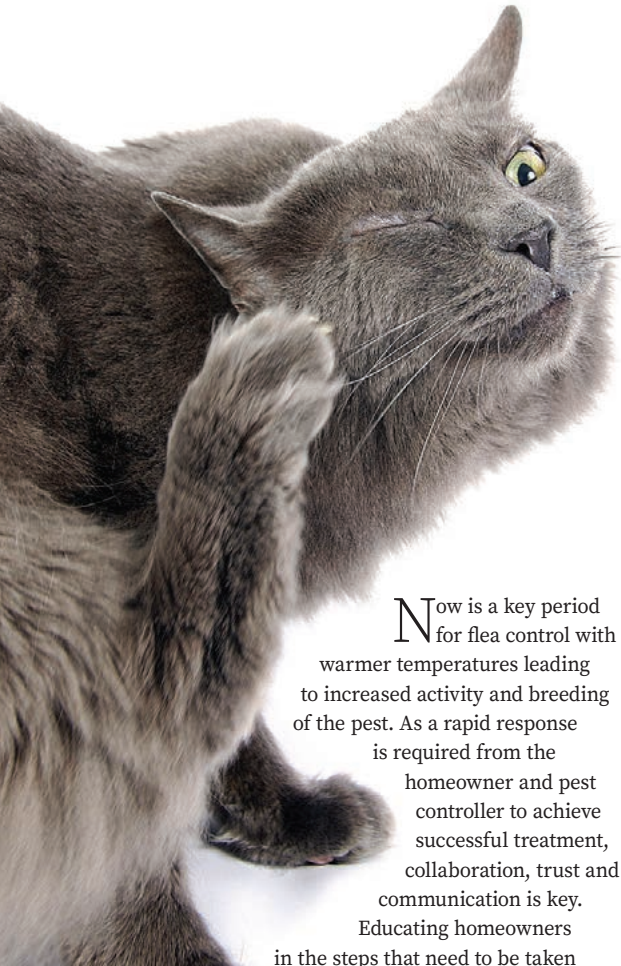
Tell us about it so we can share it in PPC magazine!



hello@bpca.org.uk

FLEATING FRIENDSHIPS

The importance of pest controller and customer relationships in flea treatments



Richard Moseley, National Account and Technical Manager of Bayer CropScience investigates what a pest management professional can do to foster a strong customer relationship.

Now is a key period for flea control with warmer temperatures leading to increased activity and breeding of the pest. As a rapid response is required from the homeowner and pest controller to achieve successful treatment, collaboration, trust and communication is key. Educating homeowners in the steps that need to be taken

before and after flea control applications should be a priority for pest controllers to ensure successful, efficient control.

A two-pronged attack from homeowners and pest controllers is the best way to successfully treat flea infestations.

Flea infestations can escalate quickly due to the pest's prolific breeding pattern, which can see them lay between 800 to 1,000 eggs within their lifecycle. This is why it's important to treat properties as soon as possible to ensure the infestation doesn't build up and become harder to control.

However, many people are not keen to admit to a flea infestation, so it's important to make homeowners feel comfortable when they contact you about the problem – often flea infestations are just bad luck. Involving the homeowner in the planning process will help them to understand the procedure, feel more comfortable and also improve the efficacy of the treatment.

HOW TO IDENTIFY FLEA INFESTATIONS
Although flea infestations in domestic

cases are usually easy to identify, it's important to know what you are dealing with before visiting the property. Once homeowners have made contact about a suspected flea infestation, try to gather as much information as possible.

Understanding if they have pets in the house is the first step.

Ask customers to inspect animals for fleas and bites and any itching or scratching. Humans can also get bites, particularly around the ankles, and this is an indicator of flea infestations spreading around the house.

Seasons and weather conditions can also play a part. Flea infestations tend to be more problematic in the summer because the warmer weather increases insect activity and breeding. Also, animals go outside more and are more likely to pick up fleas from interaction with other animals or fleas that have survived in the grass.

PRE-TREATMENT MEASURES

Once you've gained as much information as

Ratwall.co.uk. No1 in the UK for Rat Blockers

- Un-rivalled range
- Unbeatable quality
- Exceptional service

Available from quality product distributors
Ratwall.co.uk for technical information,
videos, testimonials and more



Ratwall is great value. Robust, with easy installation and cannot become lost into the drain.



Ratwall M
by METEX

The Dogs Dangle! The Nordisk TX11 (aka VERMEND) with sizes up to Ø350mm and 90,000+ installations



NORDISK INNOVATION



Bayer recommends...

“The Bayer Advantage® flea treatment controls fleas if they’re already a problem and also provides up to 28-days protection against the pest. This is a spot-on treatment that kills fleas through contact, rather than oral products where fleas must be attached and feeding for the treatment to take effect.”

“I would suggest using a product such as Ficam W, which is a long-lasting broad-spectrum carbamate spray for

control of a wide range of pests, and because it isn’t a pyrethroid it’s an ideal tool for resistance management.

“It’s odourless, non-tainting and non-corrosive which makes it the perfect product for use in a home environment around pets.

“If further treatment is required then K-Othrine WG is the perfect solution because it has a different mode of action, helping to reduce resistance build up.”

possible from the homeowner, give them some simple steps to follow before you visit the property to treat. Ask them to vacuum the whole house to remove any larvae, fleas and debris from between gaps in the floorboards, on furniture and in carpets.

The vibrations caused by vacuuming may also cause fleas to advance from the pupation to adult stage, increasing the likelihood of the treatment having direct contact with the insect.

Vacuuming will also remove any dust and dirt which could act as a barrier between the insecticide and the pest. The cleaner the treatment area the better the product will work.

Access to the whole house is vital for treatment success. Ask the homeowner to clear the floors in all rooms, wash any pet bedding and indicate the areas where pets sleep, as these can be the most densely infested areas that can be missed during routine cleaning.

To reduce the likelihood of re-infestation

after treatment ensure the customer treats pets for fleas and empties the contents of the vacuum outside. Preventative flea treatment is the best way to control fleas in pets.

TREATMENT

When arriving at the property, carry out a thorough survey of the entire house to grasp the full extent of the infestation. Once the survey is complete and the site is ready for treatment, make the homeowner aware of the exclusion time before applying the product.

It’s important to use a product that has a long-lasting residual effect, and consideration should be given to the insecticide’s active ingredients, and resistance management if regular treatments are made.

It’s important to read the product label to ensure that the product is being applied at the correct dosage rate for the location and pest it is controlling.

AFTER TREATMENT

Once the treatment has been

undertaken, provide guidance to ensure treatment is successful and help prevent further infestations.

Ask the homeowner to avoid vacuuming for as long as possible after the treatment



to allow the insecticide to work to its full capability. It’s also important to stress that pet flea treatment needs to continue on a regular basis to prevent further

infestations. Product labels should be checked thoroughly for application details, but they typically need to be treated every three months.

Flea infestations are a common issue in many households, so ensuring homeowners feel confident seeking professional advice, is vital. Ultimately the bigger the infestation the more time, work and money required to get on top of it. That’s why it’s important to educate homeowners that professional pest control is required to control these infestations.

WANT TO WRITE FOR PPC MAGAZINE?

Got an idea for an article that you think will help pest management professionals with their practice?

 hello@bpca.org.uk



ServSuite™

A ServicePro software.

Fully Integrated Mobile App & GPS Vehicle Tracking

ENTERPRISE PEST CONTROL SOFTWARE

- Scheduling
- Invoicing
- Mobile Apps
- Marketing

- Barcode Scanning
- GPS Tracking
- Routing/Mapping
- Inventory MGMT

- Reporting
- Compliance
- E-Mail
- Web Portal





joins



ServicePro™

Call
0208 816 7164

globalsales@servsuite.net
www.ServicePro.com/UK

PESTWATCH: Cluster flies

BPCA Field Officer, Natalie Bungay, is back again with some more seasonal pest management advice. This PestWatch we're taking a look at the tiny cluster fly.

The time is upon us, (or maybe it has for a couple of months now) when cluster flies (*Pollenia rudis*) are a common phone call coming into your organisation from concerned customers. As we know, cluster flies become a serious problem and a major pest in rural homes, and other structures in the autumn when they enter buildings to overwinter, and again, more relevantly, in the spring when they seek ways to escape to the outside.

Heavily infested buildings may contain several thousands of these flies. Sometimes a few thousand of them aggregate and form a cluster which can encourage the assumptions, when not identified as cluster flies, that there is a public health concern or dirty conditions.

While cluster flies are not filth flies, they are severe nuisances when they fly in huge numbers around living quarters.

ACTIVITY, BIOLOGY AND BEHAVIOUR

In autumn, cluster flies congregate in large numbers in upper rooms or roof spaces of houses to hibernate. They also commonly cluster around the edges and cracks of window frames and openings, escaping the cooler temperatures.

Once successfully into a structure, the flies will seek suitable overwintering spots. The flies have been documented staying in tunnels made by beetles in timber and in animal burrows.

Before overwintering, cluster flies' abdomens are full of fat globules to help them survive months of inactivity.

CLUSTER FLY FACTS

There are over 20 *Pollenia* species recorded in Britain, most of which can't be identified without microscopic examination to key out complex features.

Pollenia rudis is generally the most common species.

In summer and autumn, it can be commonly found sunning on sheltered fences and tree trunks.

Cluster flies are so called because they congregate, often in large numbers, to hibernate in attics and out-houses.



Image: Joaquim Alves Gaspar

The typical cluster fly *Pollenia rudis* is about 7mm long, has short golden-coloured hairs on the thorax and irregular light and dark grey areas on the abdomen. Cluster flies are typically slow moving and pass the winter as adults so are very common in early spring.



IT CAN BE HARD TO ACCEPT SOMETIMES THAT PREVENTING CLUSTER FLIES WITHIN CERTAIN PROPERTIES IS MOSTLY IMPOSSIBLE.

In spring, once the weather warms, cluster flies start to become active again. Although, because of our temperature-controlled homes, it's not uncommon for them to emerge earlier having been tricked into thinking spring has arrived.

Once the outside conditions are stable, the adult fly gets straight on with furthering its generation by laying its eggs within damp soil or rotting vegetation. The eggs hatch within about one week. The larvae then actively seek earthworms.

DIET

Earthworms are a major source of food for the larvae of *Pollenia rudis*. The main species of earthworm that these cluster flies infect are *Aporrectoda caliginosa*, *Aporrectoda chlorotica*, *Eisenia lucens*, *Lumbricus rubellus*, and *Lumbricus terrestris*. Immediately after the larvae hatch they begin looking for worms.

The first instar larvae eat their way through the integument section of the earthworm's epidermis. While feeding, the larvae leave the spiracles outside of the earthworm. Inside the earthworm, the larvae feed until they are ready to pupate. Once ready, the larvae bores its way out of the earthworm, tunnels back nearer to the surface of the soil and pupates.

The adult flies are, in most cases, herbivores. They feed on many types of organic matter. Plant sap, fruit and flowers and so causing very little problems through the warmer months of the year.

Because of this metamorphosis, these flies are generally most common in rural environments.

TREATMENTS

It can be hard to accept sometimes that preventing cluster flies within certain properties is mostly impossible. If you think about it logically, preventing means to 'break' the cycle of one of the metamorphosis stages. Let's consider this then:

The egg – can we remove the desirable areas of which the adult flies wants to lay its egg? Not really, unless we consider flattening all foliage within a radius of few miles and concrete over

Larvae and pupae – can we take the food source away from the larvae, the earthworms? Again, no, not unless you consider the above.

With this all in mind, prevention is determined as unrealistic. We must then turn our attention dealing with these flies as and when they decide to enter buildings.

Proofing a property will seldom be 100% effective but it should and can be considered. Caulking around window frames and sealing other possible entry points can contribute greatly.

Once the flies are inside, control is relatively simple with both physical and chemical approaches. Cluster flies can often most easily be removed physically, with a vacuum cleaner for example. Doing this whenever they occur will greatly reduce their nuisance factor.

Alternatively, or in addition, most pyrethrins/pyrethroid-based space sprays will quickly kill exposed flies, and in some situations, smoke formulations based on permethrin can be very effective. Special care must be taken when using smoke generators with a fuse lighting mechanism, particularly in the view of fire risk.

PESTWATCH: Calendar

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ants | | | | | | | | | | | | |
| Bed bugs | | | | | | | | | | | | |
| Birds | | | | | | | | | | | | |
| Bluebottles | | | | | | | | | | | | |
| Carpet beetles | | | | | | | | | | | | |
| Clothes moths | | | | | | | | | | | | |
| Cockroaches | | | | | | | | | | | | |
| Death watch beetles* | | | | | | | | | | | | |
| Fleas | | | | | | | | | | | | |
| Foxes | | | | | | | | | | | | |
| Fur beetles | | | | | | | | | | | | |
| Harvest mites | | | | | | | | | | | | |
| Head lice | | | | | | | | | | | | |
| House flies | | | | | | | | | | | | |
| May bugs | | | | | | | | | | | | |
| Mice | | | | | | | | | | | | |
| Mosquitoes | | | | | | | | | | | | |
| Moths | | | | | | | | | | | | |
| Rats | | | | | | | | | | | | |
| Red spider mites | | | | | | | | | | | | |
| Spiders | | | | | | | | | | | | |
| Squirrels | | | | | | | | | | | | |
| Wasps | | | | | | | | | | | | |
| Wood rot | | | | | | | | | | | | |
| Woodworm | | | | | | | | | | | | |

* Beetles emerge

Care should be taken to check for the presence of bats before carrying out insecticidal smoke treatments, if bats are suspected or reported by the customer then you must not carry out any works but refer the customer to a body such as the Bat Conservation Trust (BCT).

In some situations, it may be reasonable to install an electric fly killer which is switched on only in the months of known cluster fly activity. Again, be sure that if one is installed in an attic, it is certain that no bats are present.

IN SUMMARY

Cluster flies usually return to the same location year after year (and there is very little we can do to prevent it) so good communications with customers to explain this will ensure understanding and management of expectations.

WHAT NEXT?

Got a pest you want us to cover in PPC, let us know!

 hello@bpca.org.uk

PROTECT AND PROFIT:

ALL THINGS APIS MELLIFERA

Norman Guiver from Bee.Watch investigates how the chemicals that are necessary for life as we know it in the 21st century have had widely documented negative impacts upon invertebrates, and what we as pest management professionals can do about it – while potentially making more of a profit in the process.

SPEED VIEW

- **A common obligation towards pollinators has provided a unique opportunity for beekeepers and pest controllers to work together**
- **A reduction in swarm numbers has resulted in beekeepers paying for swarms to replenish lost colonies**
- **Pest controllers can learn to collect honeybee swarms and it is recommended a relationship is established with your local beekeeper**
- **A swarm carries enough honey to last four days and in that period the swarm must establish a new colony and build comb to survive**
- **Speed and good communications will underpin our ability to control the Asian hornets and pest controllers will undoubtedly be on the front line.**

Environmental celebrities and the media present many visual eco-disasters, but a lot of chemical use is invisible and results in the disastrous loss of insects going almost unnoticed. The sheer volume of insects many of us knew as children no longer exist. Remember wiping the windscreen for insect residue on car journeys?

Honeybees (*Apis Mellifera*) are the only insects commercially managed to produce a food crop. Honeybees as a species are subsequently invaluable indicators of insect health. However, it is not only beekeepers who are acutely aware of these issues. The British Pest Control Association actively calls for pesticides to only be used as a last resort.

Environmental awareness and a common obligation towards pollinators has provided a unique opportunity for beekeepers and pest controllers to work together.

There are several important aspects that offer unique business opportunities for the environmentally aware, business minded pest controller to consider:

- Honeybee swarms (often mistaken for wasps by members of the public) have a commercial value. A dramatic reduction in swarm numbers over recent years has resulted in beekeepers paying for swarms (up to £75) to replenish lost colonies.
- Wasps already have a commercial value as normal business for pest controllers.
- The Asian Hornet *Vespa velutina* (AH) could potentially become another source of income for the trained approved pest controller, following its UK expansion in 2018 from mainland Europe. There were over 10,000 AH nests in northern Spain in 2016[1] and they prey exceptionally well on honeybees (more of this later).



Image: Mike Light

Steve Light of Shire Pest Solutions working with Bee.Watch beekeeper Filipe Salbany removing an established colony of 40,000 bees. Both companies regularly communicate through the Bee.Watch app and look forward to a busy swarm season.



OPPORTUNITY

UK honeybee populations have the potential to be negatively impacted by many environmental factors, including the Asian hornets. Thus it is really important to collect honeybee swarms and help ensure their survival.

Pest controllers can learn to collect honeybee swarms and it is recommended a relationship is established with your local beekeeper (search your local beekeeping association or contact Bee.Watch for help finding them) to:

- Know who to contact when you have a swarm of bees
- Inform them who they can contact about wasps, hornets or other pests.

Easily sourced from beekeeping suppliers, a simple 35-50L box with a loose-fitting lid is required for collecting swarms, together with an understanding of bees and how to collect the swarm into a box then transfer to a hive.

Bee.Watch 'Swarm Harvest'

Concerned beekeepers at Bee.Watch have developed a comprehensive system to efficiently manage the reporting and collection of honeybee swarms, with additional features to include reporting wasp nests and sightings of Asian hornets.

HOW IT WORKS

- Without the necessity for telephone calls, Bee.Watch allows anyone to report a swarm and instantly deliver a smartphone 'buzz notification' to all Bee.Watch registered swarm collectors within 10 miles of the swarm's location
- Only one swarm collector can 'claim' the notification, instantly removing it from other collectors and preventing duplicate call-outs
- If wasps or hornets have been reported via Bee.Watch, the notifications can be seen and claimed by any registered pest controller users of Bee.Watch
- Bee.Watch includes the 'iWas' feature for Beekeepers Users, who register an 'i Want a swarm' alert, providing collectors with an immediate outlet and potential market for collected swarms
- The Bee.Watch API (application program interface) allows any website visitor to report a swarm, wasp or hornet nest, and can easily report seasonally changing pests. As the season progresses, your site becomes the place people go to for help. Install it on your website to gain new traffic.

WORKING TOGETHER

One of only two swarms collected by Bee.Watch in South Oxfordshire in 2018 was residing in a garage ceiling. Shire Pest Solutions called upon Bee.Watch swarm collectors to extract the colony; it was successfully rehoused at the Bee.Watch apiary and produced honey later in the year.

To start a new colony, beekeepers must make new queens and then it is a year before the colony is big enough to produce honey. Alternatively, they can purchase a '6 frame nucleus', or small established colony from a bee supplier which can cost approximately £200.

An early season swarm with more than 5,000 bees can become a thriving colony and produce honey the same year. And that's where a honeybee swarm's value lies. There is an opportunity for collected swarms to be distributed to beekeepers in need. As an example, 15,946 batched number of queens were imported from the EU into England, Scotland and Wales in 2018 [2].

LONG LIVE THE QUEEN

The Queen bee is an egg laying machine who may live up to four years. An average forager bee will live only six weeks in peak season. So why do swarms happen and what should the pest control industry be looking out for? Understanding the basic life cycle of the bee helps understand swarms: egg > grub > pupa > bee > egg...

Approximately 20 days after a queen has laid and fertilised an egg, a (female) nurse bee emerges. Her role is to feed the next generation of grubs and produce royal jelly, a rich protein that is fed to a normal fertilised egg to 'make' a queen, or wax to make new cells. As new bees hatch, existing nurse bees become worker bees. Worker bees have various roles, evolving from basic hive cleansing, preparing the nectar to make honey, capping cells, guarding and then foraging.

SWARMING

Worker bees decide to make a new queen when:

- An old queen is reaching the end of her life, becomes sick or is not laying
- The colony is growing too large for the hive or nest in which they are located, or
- The hive is infected with growing levels of disease or infestation (varroa, wax moth).

They do this by feeding a normal fertilised egg with royal jelly. Approximately 16 days later, the new queen is ready to emerge. Prior to this, the old queen will leave the hive, taking foragers with her in a swarm and leaving workers and nurse bees behind, plus those foragers who were out foraging at the time.

When the old queen leaves the colony she releases a pheromone for her swarm to follow. She has not flown since mating, perhaps several years earlier, so initially she and her swarm will gather in a resting



From top: grubs and brood; foragers collecting pollen



Images: Penny Hearn

place near the hive. Swarming bees don't sting, although guard bees from the original colony could if nearby.

As afternoon temperatures drop a swarm will look for somewhere to rest. As morning temperatures rise, swarms may move on. Typically, a swarm carries enough honey to last four days and in that period the swarm must establish a new colony and build comb in which the queen can lay, to survive.

SWARM COLLECTION

Time is of the essence and the key to swarm collection is the queen's pheromone or smell. There are many methods of catching a swarm, but the sooner collection occurs the greater the chance of survival.

A familiar honeybee swarm is one hanging in a tree shaped like a rugby ball. Relatively simple to collect, a box with any gaps in the lid (~6-7mm) should be held with the lid open under the swarm. The branch on which the swarm is located should be shaken so the swarm falls into the box or if the swarm is against a building, they can be scooped into the box with a brush or by hand.

The lid should be loosely closed and left for approximately an hour allowing the other bees to follow the queen's pheromone into the box. Although a few bees will be left behind, the box can then be removed for rehousing and any remaining bees will return to the original colony.

CONTINUED >

ALL THINGS APIS MELLIFERA

TRANSFERRING THE SWARM

A beehive or nucleus box (small bee colony box) containing frames and a white sheet is one way to make the transfer. If the swarm collection box contained frames, put these in the hive first and put the roof on.

Tuck one end of the sheet under the hive entrance, with the remainder spread in front to create a 'ramp'. Empty the contents of the swarm box, including the queen, onto the white sheet. Within approximately 30 minutes, the swarm will have walked into the hive!



A 'Taranoy' artificial swarm with a gap between the hive and a white sheet so only foragers can fly across. Separated nurse and worker bees can be relocated to start a second colony.

ASIAN HORNETS

Pest control technicians are called to all manner of pests, but the Asian hornets may need your attention in 2019.

The Asian hornet is an invasive species that predates on honeybees. It is aggressive and will sting and chase away anything that comes within 5m of their nest. An AH will consistently return to a beehive to gather protein for their brood [3]. A single colony produces on average 6,000 individuals in one season [3], their spread through mainland Europe has been well documented [4]. They can easily be identified as their legs are yellow from the knee down, sightings should be reported to the Non Native Species Secretariat (NNSS) immediately at alertnonnative@ceh.ac.uk

Tracked sightings notified through Bee.Watch should also be forwarded to the NNSS. AH ID posters can be downloaded from the National Bee Unit [3]. The Asian Hornet should not be confused with

other hornets (images sourced from the French Museum of Natural History [5]).

Speed and good communications will underpin our ability to control the Asian hornets and pest controllers will undoubtedly be on the front line. There is plenty of opportunity for pest controllers to be aware of Asian hornets presence. Please make sure you know who to contact in the event of seeing one or a nest.

HAVE POSITIVE EFFECT ON THE PLIGHT OF HONEYBEES

With increasing honeybee losses there is a growing need for new colonies to replace them. The UK's combined imports of queens and colonies together with those reared by UK beekeepers far outweigh the official numbers for annual colony losses.

In 2018, there were significant reductions in feral swarms across some areas of the country, with some areas reporting none at all. Cheshire beekeepers reported 100 while Oxfordshire was down 97% from 400 in the previous year [6]. It would really help beekeepers to help pollinators, if swarms were efficiently collected.

Do your bit to notify and catch swarms, put the API on your website, get to know your local beekeepers and grow the environmentally aware image of your business.

All Bee.Watch information is securely hosted on a cloud database with police approved 'Secure by Design' status, so the veracity of Bee.Watch data can be traced. No data is stored on a smartphone or PC. Consequently, there is a nominal annual fee for the hosting service. Once collected, the data will be valuable for monitoring the spatial and annual trends of swarm and other environmental issues across the UK.

MORE INFORMATION

-  ng@uwwatch.co.uk
-  **01491 651229**
-  bee.watch



European hornet (*Vespa crabro*)



Asian hornet (*Vespa velutina var nigrithorax*)

[1] BBC News 12th September 2018 'One nest' could spread Asian hornets across Britain www.bbc.co.uk/news/world-europe-jersey-45500004

[2] EU Import Record (accessed March 28th 2019) www.nationalbeeunit.com/public/BeeDiseases/euImportReport.cfm?year=2018

[3] National Bee Unit Bee Base March 2019 - Asian Hornet www.nationalbeeunit.com/index.cfm?sectionid=117

[4] Keeling, MJ et al (2017) - Predicting the spread of the Asian hornet (*Vespa velutina*) following its incursion into Great Britain - Scientific Reports 7, Article 6240 www.nature.com/articles/s41598-017-06212-0

[5] Referenced at National Bee Unit (see [3]) - the *Vespa velutina* identification information sheet as sourced from the French Museum of Natural History

[6] Feedback to Bee.Watch at various UK beekeeping events and BPCA Regional Forums

Closure and prosecution stories

RODENT RISKS

Pest infestations, particularly associated with rodents, cause more emergency closures of food businesses than virtually anything else. When googling 'rodent risks', you could be forgiven for thinking that your time is up if you dare even to go near rodent-infested premises. In this article, Dr Belinda Stuart-Moonlight, of Moonlight Environmental, aims to give a more balanced and evidence-based view of the dangers associated with rodent infestations in food businesses.

As an expert witness in food safety cases in the UK criminal and civil courts, this is my bread and butter – explaining what is real, as opposed to received wisdom. I have no bias: I take instruction both from prosecuting local authorities, and food businesses on the defence. I focus on the science.

In this article, I shall:

- Outline the biological and allergenic dangers associated with rodents
- Outline the relevant law that applies to food businesses in the UK
- Explore the likelihood of food contamination and illness
- Comment on some recent prosecutions.

CONTINUED >



An online CPD quiz based on this feature is now available on the BPCA website. BPCA affiliates can take a CPD quiz at any time bPCA.org.uk/cpd-quiz or sign up at bPCA.org.uk/affiliate



RODENT RISKS

SPEED VIEW

- Some diseases are carried by rats but not mice, some by mice but not rats, but the majority are carried by both
- Rodents can pass other forms of contamination onto food packaging and directly into foods simply by moving about
- There are many different requirements which a food business can fall foul
- In assessing risk, one must consider how well the pathogens survive in the environment
- The criterion used to determine whether a food business should be closed because of an infestation is whether there is an 'imminent risk to health'
- Variation in fines highlights that other factors such as the business's turnover are also considered at sentence.

MOIST AND NUTRIENT-RICH SURFACES FAVOUR SURVIVAL OF MOST BACTERIA.



THE BIOLOGICAL AND ALLERGENIC RISKS ASSOCIATED WITH RODENTS

Zoonotic infections are those that are transmissible from animals to humans. Some diseases are carried by rats but not mice, some by mice but not rats, but the majority are carried by both.

Diseases prevalent historically, such as bubonic plague, may not be relevant nowadays in the UK. Others are 'emerging zoonoses'; that is, diseases that are either on the increase or ones where our knowledge, understanding and ability to detect are improving: an example is Hantavirus.

Zoonotic infections associated with rodents worthy of consideration include:

- Campylobacter
- Cryptosporidium parvum
- Hantavirus
- Leptospirosis
- Lymphocytic choriomeningitis virus (LCMV)
- Q Fever
- Salmonella
- Toxoplasma gondii.

Rodents can pass other forms of contamination (physical, microbiological, chemical and allergenic) onto food packaging and directly into foods simply by moving about. This article, however, focuses on rodents being a reservoir of zoonoses, in other words being infected and passing the disease with which they may be affected, onto people directly or indirectly through food.

An additional non-food-related health hazard associated with rodents is an allergic reaction. Mouse urine contains a small lipocalin protein thought to be a territorial scent-marker, this is considered to be a risk factor for allergic sensitisation and asthma.

ROUTES OF TRANSMISSION

In considering risks in food businesses, it is important to note that zoonoses will be present in different types of rodent excretion and will gain access to human bodies in different ways:

- Rodent excretions in which zoonoses can be present include:
 - Saliva (eg rats, Hantavirus)
 - Urine (eg mice, LCMV)
 - Blood (eg mice, Salmonella typhimurium)

- Faeces (eg rats and mice, Campylobacter)
- Birth products (eg mice, LCMV).
Routes of transmission include:
 - Faeco-oral (direct and indirect contamination)
 - Inhalation
 - Skin/mucus membranes
 - Injection (eg from a bite).

FOOD LAW AND OFFENCES RELATING TO FOOD BUSINESSES

In relation to pests there are many different requirements to which a food business can fall foul:

- Failure to keep clean (EC:852 Annex II Cpt I 1)
- Failure in the food safety management system (EC:852 Article 5)
- Adequate procedures to control pests (EC:852 Annex II Cpt IX 4)
- Maintenance (structure) (EC:852 Annex II Cpt I 2c)
- Protection of food from contamination likely to render it unfit, injurious to health or contaminated (EC:852 Annex II Cpt IX 3)
- Withdrawal of products from the market not in compliance with food safety requirements (EC:178 Article 19 (1))
- Not placing food on the market that is unsafe (injurious or unfit) (EC:178 Article 14).

FOOD BUSINESS CLOSURE

What should a pest controller see as significant?

Risks increase where rodents are in close proximity to open, high-risk food: that is, food that normally requires refrigeration and is ready to eat. An active infestation that has extended out of dry stores into kitchens or food manufacturing and packaging areas will be a concern.

The presence of diseased animals should also warrant a more robust control strategy

Likelihood of contamination and illness - pathogen presence in hosts, pathogen survival in the environment, ease of transmission during cross contamination and infective dose.

“The presence of rats and mice in premises that sell or serve food is always undesirable, but the seriousness of their potential for spreading disease is sometimes incorrectly assessed.”



There is a world of difference between knowing that rodents have the potential to carry and pass on disease and this actually happening.

Rodents can only pass on zoonoses if they are already infected. For instance, most rodents are not infected with salmonella. It is not part of the normal flora of rodent intestines: it would only be present if the animal had ingested the pathogen; the most likely sources are farms or abattoirs. There is arguably less chance of a rodent being infected in urban situations than in a rural one.

In assessing risk, one must consider how well the pathogens survive in the environment. Over time they dry, but some are much more resistant than others. The surface on which they are deposited will also influence survival. Moist and nutrient-rich surfaces favour survival of most bacteria. Even where pathogens survive in the environment, they can be killed or sub-lethally injured, meaning they could not give rise to illness in a human.

Finally, and crucially, enough of the pathogens would need to be transmitted to a human in order to cause disease – an infective dose. The amounts may differ depending on whether the unfortunate recipient is more or less vulnerable (eg very young, old, pregnant or immune-suppressed).

Emergency closure action - service of a hygiene emergency prohibition notice

The criterion used by environmental health departments to determine whether a food business should be closed because

of an infestation is whether there is an ‘imminent risk to health’. This is usually signified by a heavy rodent infestation. Closure action stops a business from trading immediately, the enforcement action subsequently validated at a magistrates’ court. If the authority also prosecutes the business, such action usually gets to court some months later.

PROSECUTIONS AND SENTENCES

One of the reasons that I have been so exacting about rodent risk is because if a person or business is found guilty, courts are duty-bound to follow guidelines about sentencing. The current sentencing guidelines relating to food offences were introduced in February 2016, and risk of harm is an important part of the equation used by a judge to calculate sentence (eg fines or imprisonment). Since the introduction of these guidelines, there has been an increase in the level of sentence in pest cases, which is a concern to food businesses.

An example is the London Borough of Croydon v Poundworld case. Here, only low risk wrapped food was involved, and the rodent-related element of the fine was £660,000. In this case, I gave evidence and having looked in great detail at the risks associated with the mouse infestation, Her Honour Judge Smaller concluded that there was a ‘low risk of a serious adverse effect’. In other words, it was unlikely that somebody would have been made ill, but if they had the disease could have been serious.

The Poundworld case contrasts with Liverpool City Council v Britannia Hotels, where the fine was £265,000. In the latter case, the infestations were arguably a higher risk as mice, rats and cockroaches infested a hotel with open high-risk food, over a period of two years.

The variation in fines highlights that other factors such as the business’s turnover are also considered at sentence.

CONCLUSION

The presence of rats and mice in premises that sell or serve food is always undesirable, but the seriousness of their potential for spreading disease is sometimes incorrectly assessed.

For a food business to be forced to close, there must be an imminent risk to health – here, the level of infestation is likely to be significant. Factors such as whether the rodents themselves are diseased and the degree of exposure to contamination influence the chance of disease transmission.

Fines associated with risks from rodents are increasing as judges focus their sentence accounting for, among other criteria, the risk of harm to health.

Dr Belinda Stuart-Moonlight gave a talk at PestEx 2019 on the same subject. The talk was very popular so she kindly agreed to write us an article on the issues she discussed, so everyone can take advantage of her experience.

About Belinda

Dr Belinda Stuart-Moonlight, Managing Director Moonlight Environmental, is a chartered environmental health practitioner and expert witness. She started out as an EHO before carrying out disease risk research at King’s College, University of London. She currently undertakes consultancy, auditing and training but more than half of her work is as an expert witness in the fields of infectious intestinal disease, food and health and safety. She examines risks and their control. She has worked on notable rodent infestation cases and regularly appears on BBC Watchdog and radio talking about microbiological risk.

DEALS ON WHEELS

SHOULD YOU FINANCE YOUR PEST MANAGEMENT VEHICLE FLEET?

Leasing is rapidly becoming the go-to mobility choice for businesses running commercial vehicles. There are three key reasons why: cost, compliance and choice. We asked LeasePlan, a commercial vehicle supplier, to talk PPC readers through commercial vehicle leasing.

When compared against outright purchase, fleet vehicle leasing can offer:

- More visible, predictable fleet costs
- More readily available cash to pour into your business
- More desirable, efficient, safer cars and vans
- More time to focus on your day job
- More power to deliver on your business' goals.

At the same time, leasing can also leave you with a lot less to worry about – like the risk of your valuable assets depreciating, the cost and hassle of handling maintenance, and the need to fulfil your duty of care to your drivers.

But when your business has always bought its vehicles outright, leasing can seem like a journey into the unknown.

There are plenty of vehicle financing options available. The key is finding exactly the right option, or mix, for your specific needs.

The options can affect everything from the amount of risk your business takes

on, to the size of your monthly leasing payments – and they could also have an impact on your VAT and Corporation Tax bills, as well as your immediate cashflow. A good leasing provider will use expertise to help you negotiate this complex decision, and arrive at the solution that's right for your fleet.

Here's a brief overview...

CONTRACT HIRE

Contract hire is one of the most popular methods of funding for small to medium-sized businesses. It's also one of the simplest. You hire the cars or vans you need for a fixed term, with a fixed mileage allowance, for fixed monthly rental.

You agree on the term, normally between two and five years, and how many miles you expect the vehicle to cover. Your leasing provider will expect you to pay a fixed cost for every mile travelled beyond the agreed allowance, covering them for any extra wear, and its impact on resale value.

Contract hire is popular as there is a chance to:

- Recover and spread VAT costs
- Make predictable monthly payments
- Include your maintenance costs
- Not worry about depreciation risk.

FINANCE LEASE

A finance lease model also lets your business lease its cars and vans for a fixed monthly fee – but unlike contract hire, it also transfers the risk, and potential rewards, of ownership to your business.

It comes in two distinct versions, and which one you want will depend on the shape of your cash flow:

Finance lease (fully amortised) – your lease rental payments are based on the full costs of your vehicle and aren't adjusted for expected residual value.

Finance lease – your lease rentals are based on part of the cost of your vehicle, with a balance offset until the end of the agreements – allowing for smaller rental payments along the way.

A GOOD LEASING PROVIDER WILL USE EXPERTISE TO HELP YOU NEGOTIATE THIS COMPLEX DECISION...



CASE STUDY

DRIVING BUSINESS GROWTH WITH ECOLAB**CONTRACT PURCHASE**

Like contract hire, a contract purchase model for your business can offer cars or vans for fixed monthly payments, for fixed terms, and with fixed mileage allowances.

But unlike contract hire, and finance leasing, you get the option to purchase the car when your agreed term is up.

The downside? You can't usually recover any VAT, and it must be paid upfront.

LEASING WITH LEASEPLAN DIRECT

With over 65,000 commercial vehicles, LeasePlan is one of the largest providers of commercial vehicle leasing in the UK. Whatever the size of your business, LeasePlan can help find the right vehicles for you, taking the time to understand how you'll use the vehicle, as well as discussing the best leasing options for you.

LeasePlan also knows how important it is to keep your pest control vehicles on the road - and that's why they've designed tailor-made services that will do just that.

BPCA members can benefit from LeasePlan's expertise, including access to a wide range of benefits including an all-inclusive maintenance package, specialist tyre providers, specialist roadside assistance, mobile and overnight servicing and tyre replacement - all designed to help maximise your vehicle uptime.

Commercial vehicles play a vital role in the growth of many companies. Working in conjunction with Peugeot, LeasePlan UK provided environmental services firm Ecolab with a fleet of vans and cars to support their growth and development in the UK and Ireland.

Ecolab provides pest management, water, hygiene and energy technologies to a range of industries and their fleet is around 400-strong. Over three-quarters are used by on-call technicians in the pest-control division, which means the vans must all be available 24-hours a day.

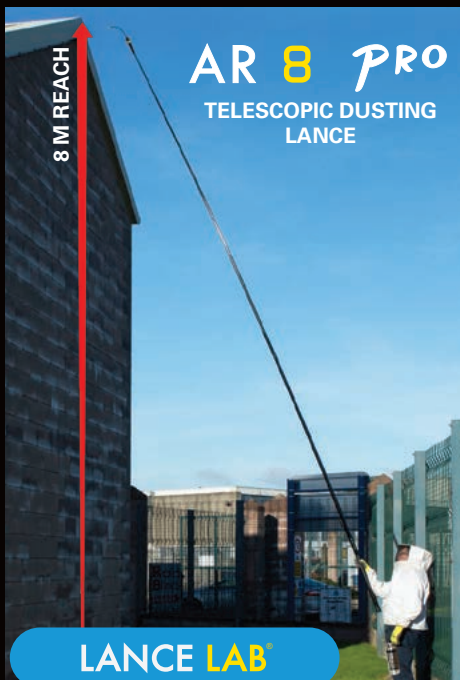
As part of the four-year contract, LeasePlan have carried out a specialist racking conversion on the vans, so they can operate safely and carry the hardware and materials needed by these specialists. LeasePlan are also providing maintenance and accident management on the fleet as an integral part of the contract.

Mark Lovett, Head of Commercial Vehicles LeasePlan UK commented: "We pride ourselves on supplying our customers with the best vehicles that suit their specific business needs. The commercial vehicle market is growing, and we know how important it is for companies to know they can get vehicles that come equipped with everything they need.

"We're working with Ecolab to ensure their fleet is operating as efficiently as possible to support its key business objectives now and in the future, especially as we consider the shift to electric vehicles. We hope to achieve this through our expert consultation, alongside maintenance prediction and monitoring, to ensure a more proactive approach is taken to help Ecolab prepare for, and mitigate against, any disruption."

MORE INFORMATION

 leaseplan.co.uk



AR 8 PRO
TELESCOPIC DUSTING
LANCE

8 M REACH

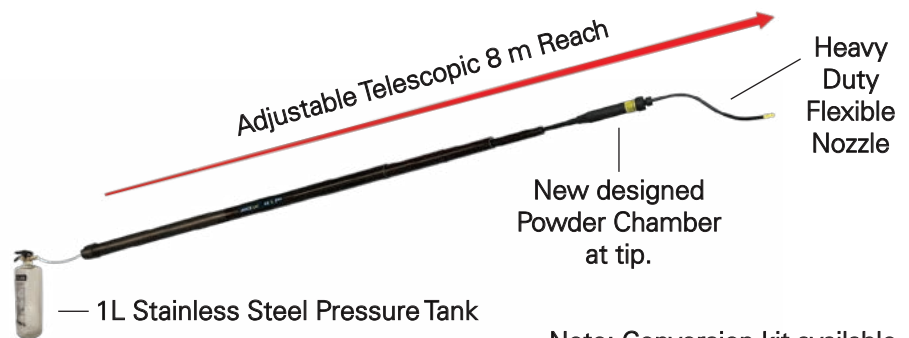
LANCE LAB



New

AR 8 PRO - Telescopic Dusting lance

No CO₂ cartridges required!



- Operates at 3 bar (9 x pump actions).

Note: Conversion kit available for older lance lab lances.

CLEAN AIR ZONES

TEN THINGS YOU NEED TO KNOW ABOUT CAZs

Will your pest management business be affected by the new Clean Air Zones?

A Clean Air Zone (CAZ) is an area where special measures are taken to improve air quality. Various local authorities, including Birmingham, Bath,

Leeds and Glasgow, will be introducing CAZs over the next few years.

London has effectively been operating a CAZ for over a decade – London’s Low Emission Zone (LEZ) has imposed fees on older, dirtier vans and lorries since 2008.

MORE INFORMATION

Get guidance on Clean Air Zones and operating vehicles in the Ultra Low Emission Zone (ULEZ).

www.insights.leaseplan.co.uk

| | | | | |
|---|---|---|--|---|
|  <p>1</p> |  <p>2</p> |  <p>3</p> |  <p>4</p> |  <p>5</p> |
| <p>A Clean Air Zone (CAZ) is an area where special measures are taken to improve air quality.</p> | <p>A charging CAZ imposes fees on vehicles that do not meet minimum emissions standards.</p> | <p>A non-charging CAZ relies on other measures, such as improved public transport and cycle routes.</p> | <p>A total of 62 local authorities have been ordered to draw up clean air plans to reduce harmful nitrogen dioxide (NO₂) emissions.</p> | <p>It is up to the local authorities to decide whether these plans include CAZs - and what form those CAZs take.</p> |
|  <p>6</p> |  <p>7</p> |  <p>8</p> |  <p>9</p> |  <p>10</p> |
| <p>The Government has stipulated, however, that non-charging measures should be preferred to charging measures.</p> | <p>Petrol cars and vans should avoid charges if they meet Euro 4 emission standards.</p> | <p>Diesel cars and vans should avoid charges if they meet Euro 6 emission standards.</p> | <p>London’s Ultra Low Emission Zone (ULEZ) came into force on 8 April 2019. It imposes a daily fee of £12.50 on more polluting cars and vans.</p> | <p>Different areas will have different clean air policies. This will be a challenge for fleets that travel from area to area.</p> |

DAILY VAN CHECKS... *...THAT EVERY PEST MANAGEMENT PROFESSIONAL SHOULD BE FAMILIAR WITH*

Faulty vehicles are the bane of every fleet operator. They can cost your business a lot of time and money while you wait for them to be fixed. In fact, the cost of having a vehicle off the road can be as much as £1,000 per day.

Even worse, they can cause accidents involving your drivers. According to government figures, vehicle defects contributed to 1,687 accidents and 2,586 casualties on Britain's roads in 2016 [1].

For business-critical fleets, such as professional pest controllers, it's even more important to keep your vehicles in good, roadworthy condition. Unexpected downtime may leave your controllers unable to perform their work, which may lead to reputational damage, lost contracts or worse.

THE IMPORTANCE OF DAILY CHECKS

Fortunately, many vehicle faults can be prevented without too much difficulty. The Driver and Vehicle Standards Agency (DVSA) says that almost half of all defects

found during MOT tests could have been prevented by simple, regular checks and maintenance gov.uk/government/news/mot-fails-could-be-avoided-by-basic-car-maintenance

KEY CHECKS TO MAKE

As a result, the DVSA, the Freight Transport Association (FTA) and the Fleet Operator Recognition Scheme (FORS) all recommend that drivers carry out daily walk-around checks before they take their vehicle out each day.

These checks should cover everything from the brakes (do they feel loose or unresponsive? Is there tension in the handbrake?) and tyres (are they at the right pressure? Is the tread on them deep enough?) to the exhaust (does it produce any unusual noises or abnormal smoke?).

MAKING TIME

Of course, that's more easily said than done. Proper walk-around checks take time, so fleet managers must ensure that drivers' schedules leave enough room to perform them each day. Your drivers must also be taught how to conduct these checks, how to spot defects and how to report them.

You'll also need to put in place a robust system to ensure that, when a driver does report a fault, it is repaired as quickly as possible. And good record-keeping is essential, too. For O Licence holders and vehicles over 3.5t the DVSA requires that reports of any defects be kept for a minimum of 15 months, along with details of how they were repaired.

[1] assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/668504/reported-road-casualties-great-britain-2016-complete-report.pdf

CHECK THESE EVERY DAY...

FLUIDS



Check brake fluid, windscreen, oil reserves.

WINDSCREEN



Is there any damage on the drivers view? Are your wipers clearing the windscreen?

BRAKES



Do they feel loose or unresponsive? Is there tension in the handbrake?

LIGHTS



Are all lights fully working?

EXHAUST



Does it produce any unusual noises or abnormal smoke?

STEERING



Is your steering responsive?

DASHBOARD



Always check for warning lights on the dashboard - and read the manual to see what they mean.

SUSPENSION



When applying weight to the corner of the vehicle does it quickly spring back into position?

TYRES



Check tyre pressure and tyre tread (legal minimum is 1.6mm).

BPCA'S NEW PRIMARY AUTHORITY PARTNER

Have it on good authority



BPCA now has a Primary Authority! I bet you're wondering what this is, why we'd want one, and what it means for members? BPCA Technical Manager, Dee Ward-Thompson, explains the new partnership and how it'll open doors for the Association and its members.



SPEED VIEW

- An organisation forms a legally-recognised partnership with one local authority - its Primary Authority
- They can provide the business with regulatory advice which other local authorities take into account in their dealings with that organisation
- If you are following the advice that the BPCA has agreed with its Primary Authority, other local authorities cannot ask you to do something different
- We're starting with Code of Conduct and exploring a contract template, but the partnership could open many doors for BPCA members.

...LOCAL AUTHORITIES CANNOT ASK YOU TO DO SOMETHING DIFFERENT, AS LONG AS YOU ARE FOLLOWING THE ADVICE THAT THE BPCA HAS AGREED...

Many trade associations have a Primary Authority. At first, I must admit it took me a while to understand if and how it could benefit BPCA and our members. What is the point of a Primary Authority? Truth be told, I didn't know until a few months ago and have been investigating what it is and what it could mean for us ever since. Like understanding a tricky pest issue I needed to break it down into the key components.

WHAT IS A PRIMARY AUTHORITY?

An organisation to form a legally-recognised partnership with one local authority. This is called its Primary Authority.

The Primary Authority can provide the business with regulatory advice which other local authorities take into account in their dealings with that organisation. Primary Authority is a means for businesses to receive assured and tailored advice on tricky issues like:

- Working with environmental health
- Trading standards
- Health and safety regulations.

A Primary Authority will let BPCA do this through a single point of contact.

A business can form its own partnership with a local authority thereby choosing its own Primary Authority. It will then receive Primary Authority advice tailored to its specific needs from its Primary Authority. Alternatively, a business can belong to a trade association with a Primary Authority. This way, each member can benefit from a coordinated Primary Authority.

In this case, the Primary Authority advice is still from the Primary Authority, but this is provided via the trade association, and tailored to the general needs of its members.

In short, this means BPCA will be able to provide regulatory advice and guidance to members assured by a local authority.

WHAT WILL CHANGE?

After understanding what a Primary Authority can do, we now need to understand what benefits we'll actually get from the partnership.

We're starting with the BPCA Code of Conduct and then later on we'll be working with our Primary Authority to get the Codes of Best Practice and Guidance Documents assured.

Our partner: Nottinghamshire County Council (with Rushcliffe Borough Council)



Nottinghamshire County Council

We knew that BPCA having its own Primary Authority would be a great benefit to the Association and our members, but it was equally important

to choose the right partner.

We needed an organisation that understood our industry and had the right skills and experience to work with us. We knew that we wanted an authority close to us as this would make building a relationship easier.

After a few meetings with different councils, we decided that

Nottinghamshire County Council (who partner with Rushcliffe Borough Council to provide the environmental health side) would be the best fit for us.

Getting the right authority was an important part of the process, Nottingham is local and has the right experience and skills to suit our industry.



The headline here is that other local authorities cannot ask you to do something different, as long as you are following the advice that the BPCA has agreed with its Primary Authority.

If another local authority has a question about the advice or a different interpretation of the law, you will be able to ask them to contact me (BPCA) and I will liaise with our Primary Authority to resolve the matter. This means that you can carry on running your business knowing that you are protected from the consequences of inconsistent local interpretation of regulations.

STILL CONFUSED? HERE'S A PRACTICAL EXAMPLE...

One of your clients has an Environmental Health Practitioner, insisting on a certain pest control measure being taken that you don't agree with. As long as you

have followed the assured advice (BPCA Codes of Best Practice and Guidance Documents) we would be able to liaise with our Primary Authority on your behalf.

As long as you follow BPCA codes, BPCA members have always had the full support of BPCA. But soon, with this new partnership, you'll also have the backing of our Primary Authority - albeit via BPCA.

NEXT STEPS

We've had our first scoping meeting. This involved looking at our processes and procedures, and then discussing what would benefit the Association and members the most.

Now we're going to roll up our sleeves and work closely with the environmental health team to get our Codes of Best Practice ready to be assured. We've also set time aside with the trading standards team to see if it's possible to create contract templates.

Over the coming months, we will be working with our Primary Authority to write and publish assured documentation. We'll also release a process that you will be able to follow should you have dealings with a local authority and need help and support in getting an issue resolved.

It is early days in this exciting partnership and as the saying goes, "Rome wasn't built in a day", but I hope you're excited to see how this partnership develops and what benefits it can bring every member of the association.

GOT A QUESTION?

Do you have a query about Primary Authority that's not answered here?

 hello@bpca.org.uk

Fly Trap Adhesive

Alphabond introduces super aggressive tack adhesive with excellent high temperature performance for hot climates.

Benefits:

- ✓ Excellent hot temperature performance
- ✓ No skinning
- ✓ Very aggressive tack
- ✓ Completely clear
- ✓ Excellent 'wet out'
- ✓ Low viscosity
- ✓ Non-toxic formulation
- ✓ UV resistant

To get a free adhesive technology review call
+44 (0) 845 5212057 or email: sales@alphabond.com

Alphabond
 ADHESIVES
Making Adhesives Technology work for you™



MEET THE MEMBER

HILLBANS PEST CONTROL Certified successful!

Hillbans Pest Control was awarded CEPA European quality standard certification for pest management services BS EN 16636 in February 2018. We caught up with owner Sandra Knowles to see how they're getting on with the accreditation and to get some top tips for marketing your certification to get extra business.



ABOUT HILBANS

Hillbans Pest Control is an independently-owned family business based in Ryde on the Isle of Wight. It's a small firm but it's the biggest on the island with the most technicians. Clients are all island-based but Hillbans is often used as the on-the-spot team by national pest control providers. In the three years since husband and wife Patrick and Sandra Knowles took over the business, it has picked up plenty of local business awards.

The certification has proved to be a key factor in the growth of the business. A year on from the award, the team at Hillbans can attribute new customers and a wider range of business to the status that the BS EN 16636 standard has given them. The award has also raised their profile – they are proud to be the only local pest management company with the accreditation.

What made you apply for certification?

We knew we wanted to go for it as soon as it was launched. We learned about it at PestEx in March 2017. We operate in a competitive marketplace and could see that possessing this standard would differentiate us from our local competitors.

The CEPA standard also fits with our ethos. We're a modern firm with high quality service and high standards. We've always invested in staff training and we see CEPA as the gold standard. All of our technicians are registered with BPCA and are qualified to the RSPH/BPCA Level 2 Award in Pest Management or above.

What did you learn from the CEPA process?

The certification was quite hard-earned. It made us look at everything we do and evaluate how we worked. It's changed the way we operate in many ways – including health and safety, stock rotation, van checks and first aid training. It was a lengthy process but a very helpful one.

I'm pleased to say that we passed straight away, in our brand new office. We'd only been there for two months but we sailed through on the day.

It's a prestigious thing for our business and it encouraged us to raise our game even further by becoming members of the Contractors Health and Safety Assessment Scheme (CHAS) and Alcumus Safe Contractors.

What difference has it made to your business?

We've definitely grown because of it. A year on, we can see that it has opened doors for us. We've picked up new customers as well as new work with existing clients.



Hillbans Pest Control managing director Sandra Knowles (left) and Kym Tims proudly holding the CEPA European Quality Standard Certificate.

The key difference has been with bigger businesses that require the standard because of their own compliance procedures. The Isle of Wight is home to important suppliers of produce for supermarkets and national chain restaurants. Having BS EN 16636 means we can do more work with major food producers. We've picked up contracts with businesses like Asda and the Isle of Wight Zoo as a result of the certification. It's also opened up work from national pest control providers including Mitie Pest Control, which has been brilliant.

Certification has also helped with retention. It's secured our work with customers who require national standards but prefer to use a local business. It's definitely made our customers happier, as well as our staff. Having the standard makes Hillbans Pest Control a more attractive place to work and it has influenced our recruitment process.

Would you recommend certification to others?

Yes I would. For us it has been an investment that has paid off. There is an initial outlay

of time and money but by having the certification we are setting the standard in our marketplace. We aspire to being the best that we can – going for the certification was a challenge to ourselves and I think that's important. We don't rest on our laurels and we like being early adopters!

It raised the bar for the way we work and the service we deliver but crucially it's an ongoing certification which keeps our standards high.

We're proud to have the certification as it does set us apart – we've heard this from within the industry. New recruits to our team have come from major cities and public authorities who often don't have the certificate so we know we're really making a difference.

What effect do you see BS EN 16636 having on the wider industry?

I think forward-thinking small businesses like ours are really helping to change the way that our industry is perceived. I'm glad that we're moving away from the image of the pest controller as a toothless man with a jack russell who throws out bits of bait! Our team is made up of highly skilled professionals, as proven by our accreditation.

It's been a perfect fit for us. BS EN 16636 accreditation offers the best of both worlds to customers in a very defined marketplace where reputation is hugely important. Our clients on the Isle of Wight are receiving national standards of a service from a local business, with the fast response times that you would expect.

Interested in BS EN 16636 certification?

BPCA offers members discounted certification. Contact our team to find out how you can become BS EN 16636 Certified.

membership@bpc.org.uk

BPCA EMAIL

enquiry@bpca.org.uk

. □ x

Ask the technical team

When you're a BPCA member you can get technical support whenever you need it via our experienced technical team. Here are just a few of the latest questions posed...

INBOX

SENT

ARCHIVE

BIN

SPAM

SUBJECT: MULTIPLE RODENT BAITS

Can I use two different rodenticide products in one tamper proof bait station?

DEE REPLIES: A popular question which has three main (albeit convoluted) answers but, in short, no.

Product label – the way the label describes how to administer the rodenticide (directions of use) does not mention it is okay to 'mix' different products in the same box so it could be a problem

A label usually describes specifically the application rate. Different products may have different application rates and recommendation and so mixing products may not fully comply with the label of each product in terms of application.

In terms of reporting and marking where and what is in your toxic baiting points (on customers sites), if there are two different products/actives in the box then it is difficult to properly report on this without confusion. How do we track which has what and in what boxes (try saying that out loud three times fast)? If two different actives are in one box, how would an untrained eye know which is which in the case of an emergency? Or audit?

SUBJECT: BAITING

What's the word on open trays?

NATALIE REPLIES: Open trays are only legal when the rodenticide used has a label stating that it suitable for open tray use. Also check the specification you are working under as some sites have policies for open bait in trays. For example, food production areas may not be authorised in site policies for open bait tray use.

Additionally, a tray or a box it has to be labelled with identification if the product label makes this a condition of use.

As you know, labels are constantly changing and rewording phrases so keeping an eye on them is important.

SUBJECT: RESISTANCE

How do I find out if I have a resistant population of rodents?

NATALIE REPLIES: The Rodenticide Resistance Action Committee (RRAC) provides this service with the help of the Vertebrate Pests Unit (VPU) team at the University of Reading, UK.

With this information, RRAC has created and will continue to update a freely-accessible interactive mapping tool so that pest control operators can get information on what types of resistance are in their area, and guidance on which anticoagulants will prove most effective **guide.rrac.info/resistance-maps/united-kingdom**

The University of Reading is collecting rat and mouse tails for resistance testing. For guidance on how to send samples visit **research.reading.ac.uk/resistant-rats/rat-resistance-testing/**

SUBJECT: INVASIVE ASIAN HORNETS

What do I do if I think I have seen an Asian hornet?

NATALIE REPLIES: The Asian hornet (*Vespa velutina*) is a species which is not native to the UK. It is smaller than our native hornet and poses no greater risk to human health than other hornets or bees.

However, they do pose a risk to honey bees and pollinating insects. This is why we are keen to stop this insect establishing in the UK, and why you should report suspected sightings.

When a sighting is confirmed, experts from the National Bee Unit (NBU) and the Animal and Plant Health Agency (APHA) will work quickly to find and destroy any active nests in the area.

Guidance on how to identify an Asian hornet as well as reporting a sighting can be found here **nonnativespecies.org/alerts/index.cfm?id=4**



ARE YOU A BPCA MEMBER WITH A TECHNICAL QUERY? GET IN TOUCH...

 enquiry@bpca.org.uk

 **01332 294288**

 **@britpestcontrol**



SPEED VIEW

- You can't use multiple rodenticides in a single bait station
- Open tray use is all about the labelling
- You can search for rodenticides resistance issues on the RACC interactive tool
- All sightings of Asian hornets should be reported to the Non-native Species Secretariat.

OBSERVER STORIES

PEST MANAGEMENT IN DEVELOPING COUNTRIES
A view from Ghana



If you were at PestEx 2019 you'd have seen people representing pest management companies from around the world in attendance. There are a variety of standards internationally in pest management – with BPCA championing best practice here in the UK.

Companies outside of Britain regularly join BPCA, as Observer members, so they can try to emulate BPCA's best practice and access our guidance materials. Julian Acheampong is the Managing Director of BPCA Observer member Samson Pest Control in Ghana. He shares his Observer observations with PPC readers tackling everything from pesticide misuse to Brexit.

The ability to strike independent trade deals with countries around the world has been keenly emphasised by those in favour of the UK leaving the European Union. In turn, developing countries in many instances have higher rates of economic growth than developed economies. As a result, the British pest control industry may deepen its commercial relationships in these countries in the years ahead.

As this engagement strengthens, we would do well to be mindful of various challenges when operating in developing countries. Using Ghana as a case in point, a few issues stand out.

IMPUNITY FUELING ABUSE

Firstly there's the impact of weak institutions. State bodies are poorly funded.

This results in weak regulation which

has very adverse consequences for human health and the environment as people cut corners. For example, pesticides routinely end up in drains and gutters, including in coastal cities where most of the content ends up in the sea.

Impunity fuels the abuse. Many developing countries grapple with background corruption issues which further compound the problem.

POTENTIALLY DANGEROUS PESTICIDE USAGE

The list of pesticides approved in Ghana is another key issue. Chemicals banned or restricted in developed economies are often widely used in developing countries - sometimes in a manner wholly inconsistent with the manufacturer's instructions.

In Ghana, widespread use and misuse of organophosphates (OPs) such as chlorpyrifos is a particular concern. Less toxic alternatives exist but OPs remain approved for use even in domestic settings despite potential risks, especially for children. This situation also speaks to the power of pesticide lobbyists.

An article in The Guardian in October 2018 cited 'compelling' evidence that OPs

increase the risk of reduced IQs, memory deficits and autism in pre-natal infants. I hope developing nations will follow the lead of other countries tightening controls here.

Without enough resources regulators in developing countries also find it challenging to crack down on cheap counterfeit products entering their markets from abroad. These products are purchased by price-sensitive consumers who may or may not know the difference between legitimate pesticides and counterfeit.

HEALTH AND SAFETY PRACTICES

So who's using these pesticides?

In Ghana, it's often an illiterate farmer who wants to spray his crops. In numerous documented cases these farmers are either assisted by their wives and children or have given their wives and children full responsibility for spraying crops while they focus on more physically demanding jobs.

Typically little or no personal protective equipment (PPE) is worn by these people – they don't understand its importance and balk at the cost of purchasing it.

Often individual farmers can't afford one litre of an insecticide so four will group together, purchase a litre and

Above: Julian Acheampong, Managing Director of Samson Pest Control, with his team and ready for action!



subsequently divide the contents four ways. The pesticide is normally stored in plastic bags after being divided which has led to numerous deaths of infants who stumbled across these bags while playing.

Pesticide manufacturers importing products into developing countries should, therefore, consider packaging their pesticides in smaller concentrations for these markets.

ILLITERACY AND LABELLING

Undereducated labourers are the demographic normally tasked with applying pesticides by commercial pest control service providers. If poorly trained they are a risk to themselves, others and the environment.

Instructions on the label and material safety data sheets (MSDS) are not understood by many of these users. This highlights the obvious health and safety issues. In addition, it speaks for the need for clear, culturally-appropriate, picture-based labelling in these emerging markets.

Regular training and monitoring are essential in every context where pesticides manufactured in prosperous countries are sold into developing countries where illiteracy is common amongst pesticide applicators.

Not all health officials can diagnose and treat cases of pesticide poisoning in developing countries. The UN estimates approximately 200,000 people die annually from pesticide poisoning, 99% of them in the developing world. This does not include the approximately 110,000 additional suicides using pesticides every year. I'm sure you'll agree, these are startling figures.

British businessmen and businesswomen posted overseas soon discover challenges in securing certified organic food or pesticide-free food in developing country supermarkets. This brings into sharp focus the gap in standards and the potential health risks faced by consumers in these emerging economies.

TRUST AND INTEGRITY

In the absence of robust governing bodies in developing countries, self-regulation becomes key. If the bar isn't high, don't stand by. Raise the bar yourself.

Even at the best of times in developed countries, this business is a trust game. In the developing world, the importance of trust and judgment are further magnified considerably.

The ability to break laws with impunity presents significant risks to the health

of humans and the environment. In countries where young children are sent to landfill sites to scavenge for scraps, the irresponsible disposer of pesticide containers can do enormous harm.

Kindergartens in developing countries facing challenges with mosquitoes or bed bugs can unwittingly contaminate their premises with unsuitable toxic pesticides banned or controlled in the west but unknown to the kindergarten-owners widely available in emerging markets such as theirs.

In countries where realistically there are no adverse consequences for spraying bee nests with insecticides and landlords are desperate to see bees eliminated from their properties, steadfast adherence to principles is difficult but paramount.

The consequences of pesticide abuse are real. Food products, rivers and water bodies are sometimes contaminated. A recent study in Ghana even detected traces of pesticides in human breast milk.

Farmers spray crops, pesticide residues enter soils, rainfall transports these toxic substances to nearby rivers, and river water is used by many communities for washing food, cooking and bathing hence the contamination.

Ghana sadly is not immune to the disturbing global phenomenon of bees being negatively impacted by the use of pesticides.

Samson Pest Control has been leading the local industry in removing and relocating bees as part of its services portfolio. Corporate social responsibility on the ground and in boardrooms will be of rising importance going forward and adhering to it vigilantly is the right way to do business.

Illiteracy and under-education result in citizens with weak or no scientific knowledge. The lack of basic scientific understanding underpins a dangerously casual approach to health and safety issues. Pest control operators in developing countries are all too familiar with tales of employees shunning PPE if given the slightest chance. This includes people willing to spray insecticides without masks.

Those with the benefit of education easily understand the importance of straightforward safety procedures which the uneducated simply don't grasp because they haven't been exposed to basic chemistry, biology and physics. For professionals operating in these countries, training staff is not enough. Supervision is essential.

LOOKING FORWARD

What's required to address these various



...NO PERSONAL PROTECTIVE EQUIPMENT (PPE) IS WORN BY THESE PEOPLE - THEY DON'T UNDERSTAND ITS IMPORTANCE AND BAULK AT THE COST OF PURCHASING IT.

challenges? Greater education should be provided to people in developing countries regarding the use of pesticides as well as their health and environmental impacts.

The pesticide surveillance activities of government departments across developing countries need to be better resourced, as does their capacity generally. Health officials require much better training. Governments need to be pressurised to support the necessary policy changes to boost safety.

Pesticide advertising and the labels on pesticide containers should carry clearer health warnings which indicate in culturally-appropriate ways that pesticides are dangerous and protective equipment must be worn during their preparation and application.

WHAT ARE THE LESSONS FOR UK PEST CONTROLLERS?

On the global stage, Britain's brand is strong. The British pest control industry is respected for its expertise and professionalism. It is incumbent on all levels of the industry to carefully consider the wider ethical, social and environmental issues surrounding pesticide use in developing countries and be the leaders in rolling out best practice around the world.

YOUR STORY COULD BE HERE

PPC magazine is a membership magazine. If you're a member and have a story to share or an opinion you think needs discussing in the sector - this is your platform. Get in touch today.

 hello@bpca.org.uk

BPCA

Regional Forums

"Like a mini PestEx just around the corner!"

With PestEx done and dusted, there's still plenty going on with BPCA events for the rest of the year.

We've got an action-packed Regional Forum schedule, so there's still an opportunity for you to come along to a more intimate event and make those meaningful connections.

The Forums give you an opportunity to meet some members of the BPCA team, hear talks from industry experts and our Manufacturing and Distributor members. Plus you get a free breakfast roll and CPD points!

Every Regional Forum is a bit different so be sure to check out the events section of the BPCA site to see what the agenda is for your local event. Remember, all the Regional Forums are free to attend for everyone - whether you're a BPCA member or not!



"ALL SPEAKERS HAD SOME GOOD INFORMATION, AND I LEARNED SOMETHING FROM THEM ALL - THANKS."



BOOK YOUR NEAREST FORUM NOW!



WHY GO TO A REGIONAL FORUM?

- Get those all important CPD points
- Keep up-to-date with the latest news, products and industry changes
- Network with like-minded professionals
- Enjoy a free breakfast roll and refreshments



Every registered guest gets a free bacon roll at each Forum!

2019 SCHEDULE

Don't miss!

The BPCA Annual General Meeting (AGM) is taking place at the BPCA Yorkshire Regional Forum on 12 June 2019. Come along and have your say (votes are for full BPCA members only).

| | |
|-----------------------|--|
| YORKSHIRE +AGM | |
| WEDNESDAY 12 JUNE | |
| SPONSOR | |

| | |
|----------------------|--|
| SOUTH EAST | |
| THURSDAY 5 SEPTEMBER | |
| SPONSOR | |

| | |
|----------------------|--|
| NORTH EAST | |
| WEDNESDAY 16 OCTOBER | |
| SPONSOR | |

| | |
|------------------------|--|
| GLASGOW | |
| WEDNESDAY 18 SEPTEMBER | |
| SPONSOR | |

| | |
|-----------------------|--|
| LONDON | |
| WEDNESDAY 20 NOVEMBER | |
| SPONSOR | |

| | |
|--------------------|--|
| WALES | |
| THURSDAY 3 OCTOBER | |
| SPONSOR | |

| | |
|-------------------------|--|
| EASTERN COUNTIES | |
| WEDNESDAY 11 DECEMBER | |
| SPONSOR | |

TAKE PART!

REGISTER FOR FREE
bpc.org.uk/regional-forum

GOT AN IDEA FOR A TALK? LET US KNOW!
events@bpc.org.uk

MEMBER ROUNDTABLE **New label requirements: the what, when and how of rodenticide usage!**

New labels have created a bit of a stir. BPCA is hosting a roundtable event for members on 12 June after our AGM. It's an ideal opportunity to have an open discussion on what these changes mean to you and your business. We will have speakers from your manufacturers and distributors, plus Dr Alan Buckle from CRRU to discuss your concerns and answer questions openly.

AFTER YORKSHIRE REGIONAL FORUM
12 JUNE 2019 2-4PM

Pelsis Training Academy,
Sterling House, Grimbald Crag Close,
Knaresborough HG5 8P

FREE - BPCA MEMBERS ONLY

Register now: bpc.org.uk/roundtable



SAVE THE DATE!
REGISTRATION NOW OPEN

SEE PAGE 2 FOR MORE INFO



PPC LIVE

Technical excellence in practice

11 MARCH 2020 / YORKSHIRE EVENT CENTRE, HARROGATE

NEW TRAINING PROGRAMME

Taking a shot at pest control

Air guns can be useful tools in the hands of a properly trained pest professional. However, without guidance, it can be difficult and potentially dangerous getting to grips with the equipment.

PRACTICAL AIRGUN USE FOR PEST MANAGEMENT

Core > Classroom and practical > 1 day

BPCA Registered CPD points: 10.5

The programme is aimed at anyone that participates in the use of airguns for pest management and control. It covers the use of an airgun, the setting up of an airgun, sights, trigger techniques, ballistics, windage and pellet choice.

The course is being run in partnership with the Airgun Training and Education Organisation (ATEO).

Classroom session

- Methodology of risk assessments (generic and job based)
- Due diligence documentation
- Legal aspects of equipment use
- Wildlife and Countryside Act considerations
- Safety across all types of airgun rifles and pistols
- Ballistics (internal and external)
- Point of impact considerations
- Use of sighting systems.

Practical session

- Fitting of equipment
- Shooting positions (styles and techniques)
- Trigger and breathing techniques
- Practical shooting tuition.

Assessment and certification

- Assessment will be through a written multiple choice test at the end of the course and a practical marksmanship test.
- Upon completion of the course, candidates will receive a Certificate of Completion accredited by both ATEO and BPCA.

Candidates are welcome to bring their own firearms to the course as long as they are able to provide evidence of the correct licensing documentation.

You must be at least 16 years old to take this course.

On successful completion of this programme you will be able to demonstrate:

- Good and bad practice in risk assessments and the importance of record keeping
- An understanding of legislation around the use of airguns
- Safe loading and storage of airguns
- Different sighting and adjustment methods
- Different shooting styles and holds and the positives and negatives of each
- Understand trigger safety and demonstrate good trigger technique
- Use the correct method of gun fit
- Calculate distance and wind and make necessary adjustments
- Understand the effects of different projectiles.

Dates

Contact to register your interest or book
01332 225 113
training@bpca.org.uk

Fee

Members: £186 inc VAT
 Non-members:
 £204 inc VAT

Take a big step with the BPCA Training Pathway

The BPCA Training Pathway is designed to suit all learning styles and enables professionals to grow and develop throughout their career.

The range of interactive and accessible programmes throughout the pathway will give you the knowledge and skills you need to progress your career in the pest management industry.

Beginning with awareness programmes at foundation level, the pathway develops essential knowledge and skills at the core level, proceeding to an advanced level for professionals who wish to demonstrate more developed competencies.

We have higher level programmes available for those who wish to prove their specialist knowledge.

bpca.org.uk/training



REFLECTIVE LEARNING IN PEST MANAGEMENT

The more reflective you are the more effective you are



When BPCA Registered launched in January this year, it offered a number of new approaches to continual professional development for employees of BPCA members. One of those new approaches was around unstructured learning and reflection. Training and Development Manager, Karen Dawes, explores the ways that pest management professionals are incorporating reflection into their personal development plans.

Unstructured learning takes the form of learning outside the traditional, formal classroom training environment. BPCA Registered recognises that the most valuable learning experiences come from the learning that occurs during a pest controller's day-to-day activities and their involvement in the wider industry. Examples include:

- Non-technical reading
- Watching TV/media relevant to role
- Informal on-the-job training
- Technical support
- Informal staff meetings
- Informal mentoring or coaching.

A CHANGE OF TACK

Many professional CPD schemes have changed from requiring evidence of participation in formal education and training programmes, to using reflective learning to gauge the level of knowledge and understanding gained by the individual. This is because there is a recognition that traditional formal learning routes alone do not necessarily lead to improvements in professional practice. It is commonly acknowledged that, in many cases, much of what is taught in the classroom or online is forgotten and little is embedded in work practices.

It is entirely possible to attend a training course without necessarily learning the outcomes intended by the programme. This may have something to do with the learning styles of individuals, a lack of engagement on the day or simply that candidates didn't understand what was being taught.

Experience, coupled with knowledge and skills creates competency and

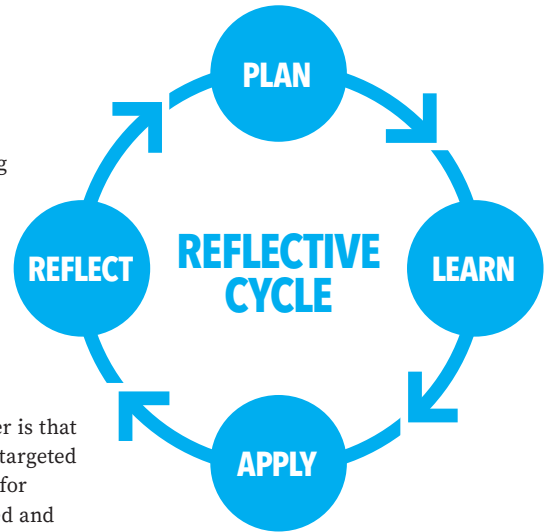
professional education alone can no longer be seen as a career-long statement of professional competence. Changes to modern professional CPD schemes reflect this and acknowledge that a great deal of valuable learning takes place outside of formal educational structures and programmes.

The important thing to consider is that unstructured learning should be targeted to the individual's personal need for development. It should be planned and coordinated with other learning to ensure that by the end of a set timescale an individual has achieved the development that was intended rather than simply collecting a specified number of points.

Reflective learning is thinking about (or reflecting upon) what you have done. It is closely linked to the concept of learning from experience, in that you consider what activity you have done, what the outcome was and then decide what, if anything, you might do differently next time.

An important part of reflective learning is a growing awareness of the opportunities for development. Talking to colleagues, staff meetings and discussions with technical experts all provide the opportunity to learn.

Reflecting on what was discussed, and what additional knowledge was gained, enables you to put the learning into the context of your wider development plan. Keeping a diary of activity and a record of your reflections enables you to evaluate your overall learning over a period of time and helps you identify areas of learning that require further development.



“



Tell me and I will forget; show me and I may remember; involve me and I will understand.”

CONFUCIUS, 450BC



Want to join BPCA Registered?

Is your company already a member? All full BPCA members can apply for their staff to be on the BPCA Registered individual recognition scheme. Contact our BPCA Registered team now and find out how you get involved.

registered@bpc.org.uk
01332 225 114



Not a member yet?

BPCA Registered is a member-only benefit. Your company can apply for full membership with BPCA and then choose to take part in BPCA Registered.
membership@bpc.org.uk
01332 225 112

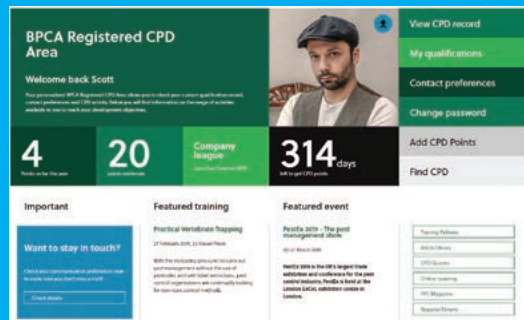
Integrated into BPCA Registered

Reflective learning has been introduced through unstructured learning activities within BPCA Registered. We are introducing it slowly to enable people to gain the skills to carry out reflective learning and feel more comfortable with it. Your reflection entry is acknowledged as evidence that the learning has taken place and you allocate points for the learning yourself based on the number of hours you have spent doing the activity – one point per hour.

All you need to do is follow these simple five steps and begin your own reflection journey!

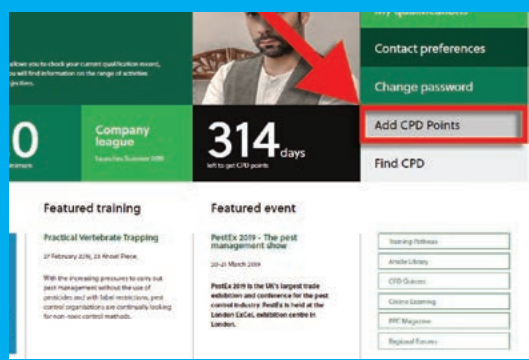
STEP 1 LOG IN

Log in to your BPCA Registered CPD area to record unstructured CPD points. Go to bpc.org.uk/cpd-area



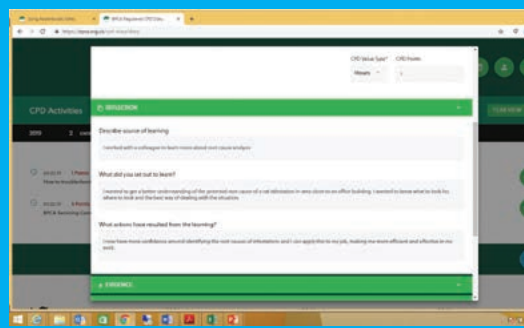
STEP 2 ADD IT

Navigate to the Add CPD Points quick button on the side of your CPD Area. All of your CPD activities are listed here in your CPD record.



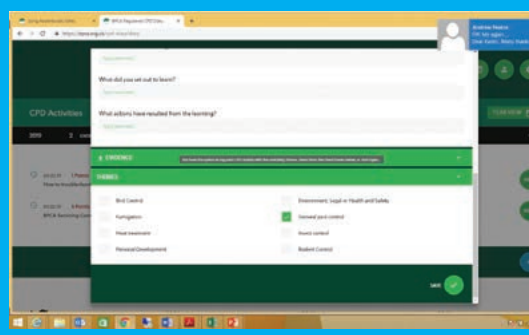
STEP 3 REFLECT

Click the blue '+' button in the bottom right hand corner. Fill out your CPD record, remembering to complete your reflection and upload your evidence, eg photos, links to videos, title of an article and publication, etc.



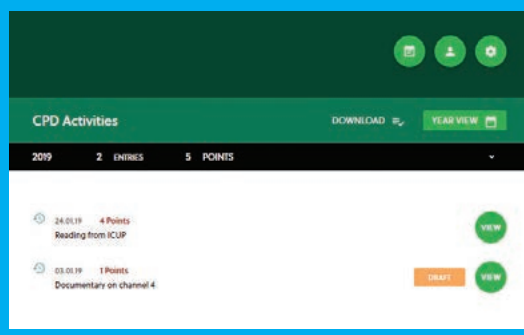
STEP 4 LOG IT

Choose the themes most relevant to your learning activity and enter the number of hours you have spent on the activity.



STEP 5 SAVE IT

Remember to press save! Your points should now appear on your account. If you've missed any fields, the record will say 'draft' until you go back in and complete the record.



CONTINUED >

Reflective learning in action

Kelly Farrant of BPCA member company Pest-Tech, is keen that his employees take ownership of and responsibility for their own development.

He feels very strongly that CPD should be targeted to the needs of the individual technician. While he will work with them to support that development, he wants them to recognise and acknowledge areas in which they need to develop. He wants them not only to think about where their development needs to be but also to recognise when they are learning.

For example, one employee hadn't yet done any rabbit work so Kelly took him with him to a job he was doing and spent time mentoring him. They covered behaviours and characteristics, indication and signs of activity, methods of control, and different forms of trapping along with all of the health, safety and legislative considerations relating to the work being carried out. The training included a practical assessment of

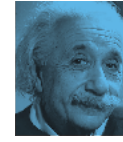
the technician's work on the day and also a return the following morning to assess the success of the treatment.

When one employee asked him what to do in a specific situation, Kelly advised him to do some research, look in the BPM manual, think about it, use his experience to think about what he might do. Later he was instructed to come back to him with his solution and Kelly would let him know if he was on the right track or whether there were other things he needed to think about.

Kelly adds, "Learning this way ensures that people are really learning because they are experiencing the learning and it's being embedded as they learn. It also supports meaningful discussions about their personal and career development, including at appraisal time."

This approach is ideally suited to the model BPCA Registered uses. It encourages a planned and focused

“



Education is not the learning of facts, but the training of the mind to think.”

ALBERT EINSTEIN

approach to CPD and moves the culture of CPD within pest management away from a "points collection" exercise.

Through the BPCA Registered scheme, Kelly and his employees are able to use the unstructured approach to:

- Add their own CPD points
- Upload some photos or videos of what they have done
- Reflect on what they have learned and how it will benefit them going forward.

Their CPD diary will help them to visualise where learning has taken place and what other learning is needed in order to achieve their planned development.

SPECIALIST INSURANCE FOR THE PEST CONTROL INDUSTRY

Bradshaw Bennett have been arranging specialist insurance for the pest control industry for over 30 years.

We are the insurance partner of the British Pest Control Association and can arrange tailored cover to protect you against the risks you face.



www.pestcontrolinsurance.co.uk

Telephone 01625 505 870 Email pestcontrol@bradshaw-group.co.uk

Authorised and regulated by the Financial Conduct Authority.

Training calendar



COURSES AND EXAMS

| Level | Course/exam | Member price £ | Exam | Start date | Location |
|---|---|---------------------|-------------------------|------------|----------|
| FOUNDATION | Using Rodenticides Safely | 130 | ✓ | 09/09/2019 | Derby |
| | | | | 21/10/2019 | South |
| | | | | 11/11/2019 | North |
| | Practical Vertebrate Trapping | 155 | | 10/09/2019 | Derby |
| | | | | 22/10/2019 | South |
| | | | | 12/11/2019 | North |
| | Practical Insect Control | 155 | | 11/09/2019 | Derby |
| 23/10/2019 | | | | South | |
| 13/11/2019 | | | | North | |
| Sales Skills | 155 | | 21/06/2019 | North | |
| Starting and Managing Your Own Pest Management Business | 155 | | 20/06/2019 | North | |
| | | | 18/11/2019 | Derby | |
| CORE | General Pest Control - Level 2 Award in Pest Management | 1010 (non resi 803) | ✓ | 16/06/2019 | Stafford |
| | | | | 22/09/2019 | Stafford |
| | | | | 24/11/2019 | Stafford |
| | Certificate in Bird Management | 155 | ✓ | 16/05/2019 | Wigan |
| | | | | 12/09/2019 | Derby |
| | | | | 24/10/2019 | South |
| | | | | 14/11/2019 | North |
| | Safe Use of Aluminium Phosphide | 310 | ✓ | 26/06/2019 | South |
| | | | | 04/09/2019 | Nantwich |
| | Bed Bug Control | 155 | | 07/05/2019 | Stirling |
| | | | | 17/09/2019 | Midlands |
| | Insect Identification | 155 | | 04/12/2019 | North |
| | | | | 08/05/2019 | Stirling |
| | | | | 16/09/2019 | Midlands |
| Safe Use of Air Weapons for Effective Pest Management | 155 | | 03/12/2019 | North | |
| | | | 29/10/2019 | South | |
| Managing Pest Control Contracts | 310 | | 26/06/2019 & 24/07/2019 | Derby | |
| | | | 21/05/2019 | South | |
| Becoming a Technical Inspector | 155 | | 08/10/2019 | Scotland | |
| | | | 22/05/2019 | South | |
| Becoming a Field Biologist | 155 | | 09/10/2019 | Scotland | |
| | | | 17/12/2019 | North | |
| Level 3 Award in the Safe Use of Fumigants for the Management of Invertebrate Pests | 780 | ✓ | 30/09/2019 | Derby | |

Terms and conditions

All costs are members only and exclude VAT.

Venue details are provisional and may change – please check the BPCA website before booking.

BPCA reserves the right to cancel a programme if insufficient bookings have been received.

Delegates will be offered an alternative date or a full refund of the programme fee if a programme is cancelled. BPCA will not be liable for any costs incurred by the delegates.

EXAMS ONLY

| Exam | Start date | Location |
|---|------------|------------------|
| MULTIPLE EXAM DAYS – take any of these exams, on any of the dates: | 15/05/2019 | N. Ireland |
| | 24/05/2019 | South |
| | 07/06/2019 | Stafford |
| | 11/06/2019 | Yorkshire |
| | 19/06/2019 | South |
| | 01/08/2019 | North |
| | 15/08/2019 | Derby |
| | 04/09/2019 | South East |
| | 17/09/2019 | Glasgow |
| | 02/10/2019 | Wales |
| RSPH Level 2 Award in Pest Management (£155) | 15/10/2019 | North East |
| | 19/11/2019 | London |
| BPCA Certificate in Bird Management (£100) | 10/12/2019 | Eastern Counties |
| | 09/05/2019 | Scotland |
| BPCA Certificated Technical Inspector (£155) | 17/05/2019 | Northern Ireland |
| | 13/06/2019 | Yorkshire |
| RSPH Level 2 Award in Safe Use of Rodenticides (£40) | 17/06/2019 | Derby |
| | 14/08/2019 | Derby |
| RSPH Level 3 Award in Safe Use of Fumigants for the Management of Invertebrate Pests (£305) | 06/09/2019 | South East |
| | 19/09/2019 | Glasgow |
| BPCA Advanced Technician in Pest Management (£245) | 04/10/2019 | Wales |
| | 17/10/2019 | North East |
| | 21/11/2019 | London |
| | 06/12/2019 | North |
| | 12/12/2019 | Eastern Counties |
| | 16/05/2019 | N. Ireland |
| | 23/05/2019 | South |
| | 12/06/2019 | Yorkshire |
| | 05/09/2019 | South East |
| | 18/09/2019 | Glasgow |
| BPCA Certificated Field Biologist (£305) | 03/10/2019 | Wales |
| | 10/10/2019 | Scotland |
| | 16/10/2019 | North East |
| | 20/11/2019 | London |
| | 11/12/2019 | Eastern Counties |
| | 18/12/2019 | North |

ONLINE LEARNING

The flexible approach to pest control training, learn at your own pace at times to suit you bpc.org.uk/online-learning



| | Member cost | Non-member |
|---|-------------|------------|
| Individual GPC modules | | |
| Introduction to Pest Management: Health, Safety and Legislation; Invertebrates; Vertebrates | £100 | £150 |
| Full General Pest Control Online | £300 | £450 |
| Using Rodenticides Safely | £75 | £100 |
| Online course and exam | | |
| Foundation Certificate in Pest Management | £50 | £75 |
| Completing Risk Assessments | £40 | £60 |

ENQUIRIES AND BOOKINGS

www.bpc.org.uk/training training@bpc.org.uk 01332 225 113

**#1 CHOICE OF
PEST MANAGEMENT
PROFESSIONALS**



CONTRAC®

- ▶ Most popular rodenticide with superior acceptance
- ▶ Especially good for sensitive areas and general use
- ▶ Available in blox, super-size blox, and pellets



SOLO®

- ▶ Strongest anticoagulant available
- ▶ Highly palatable formula
- ▶ Available in blox and super-size blox



DETEX®

- ▶ Lumitrack is a special additive that makes rodent droppings glow bright green under UV light
- ▶ Quickly and easily identify and track rodent movement
- ▶ Bait & Switch – once rodents feed on Detex, replace with one of Bell's rodenticides
- ▶ Available in blox and soft bait sachets



THE WORLD LEADER IN RODENT CONTROL TECHNOLOGY®

www.belllabs.com | emea@belllabs.com