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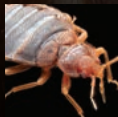
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The pest management show

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Taking the message to the masses



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Time to say goodbye



“

We may not always agree on every last detail but, over the years, I've met so many within the industry who I respect greatly, as people and for what they do.”

Looking back at the first foreword I wrote, back in PPC88, I'm pleased to see that much of what we discussed then remains both relevant to BPCA and the wider industry now, 18 months later. There's also plenty that we've subsequently gone ahead and done.

- Strategy – finalised, launched and shared, and now, well into the delivery phase
- Structure – revisiting the internal structure of BPCA, now well underway, as part of the strategy work
- Shouting about what we do – supported with the launch of BPCA Registered, as a professional development framework, while we have over 80 nominations for next year's BPMAs
- Engagement – my 'word for my term in office', which has become a key strategic thrust in our three-year strategy.

I'm immensely proud of what we have achieved together over the last year or so. When I became President there were two main accountabilities of the role:

1. Ensure the Association has an appropriate strategy, and is delivering against it
2. Line manage the CEO, and if necessary, recruit a new one.

I have spoken before about how, within the first six months of my time as President, we were working through both of these points and I'm very pleased with how we did.

Having joined BPCA as CEO in February 2018, Ian Andrew is proving to be a perfect fit for what the Association, and industry, needs in these challenging times of further regulatory and operational constraints, and scrutiny upon both the actual and perceived value of 'professional' pest management. I've certainly valued his knowledge of the internal, national and international workings of association management, along with his considered and inclusive manner. Having spoken with a number of members and industry stakeholders, I

know many of you share this view.

We continue to work through the strategy we launched at the start of the year. As I reflect upon what we put in place, I continue to believe it to be an ambitious, bold and highly relevant strategy for our members. Crucially, we've put the strategy at the heart of all we do, from the restructuring of Executive Board meetings around the strategy points, and board members providing oversight to each of the strategic thrusts, through to fixed agenda items on the committee agendas, to both sharing progress and capturing relevant market insight. There's a long way to go but so far, so good.

Reflecting upon my time as President, while from the M&D community, I wonder whether the skills and experiences that I brought to the table meant that I was probably the 'right President' for this period in the Association's journey – to oversee these two key activities. However, while we're still finalising the details of a succession plan at the time of writing, I have every confidence that there is the 'right President' ready and waiting to lead the delivery of the strategy that we've put in place, and made such a good start on.

Speaking of which, I'm sure you'll all offer your new President the same support I've been lucky enough to receive. With this in mind I would like to thank those who have supported me during my time at the helm – Executive Board members, and particularly the Officers, (Vice Presidents, Honorary Treasurer and Immediate Past President), who give so much to the Association, along with all of those who have served on a committee, working group or any other aspect of the governance structure. I'd also like to thank the two CEOs I've worked with, Simon Forrester and Ian Andrew, for their guidance, leadership and counsel,

but particularly to the members of the BPCA Staff team, whose commitment, professionalism and capacity to deliver upon our ambitious strategy, continues to amaze me – let's not forget how lucky we are to have them.

As my time with BPCA comes to an end, I encourage you all to be proud of this industry you're part of. After 18 years in the sector, my opinion of our industry, shared in PPC back in September 2017, still works for me...

“An industry not without its challenges but boasting good, hard working and passionate people and, in general, a real desire to professionalise and celebrate what we do well.”

Yes, that's right, I really did just quote myself!

But that's what I'm going to miss most from my time in the sector – the people. We may not always agree on every last detail but, over the years, I've met so many within the industry who I respect greatly, as people and for what they do. And we're lucky enough to have many of them actively engaged with BPCA.

I must confess that I'm yet to fully understand the makeup of trade associations within the new industry I'm moving to. However, the industry I leave behind has an association that will continue to deliver for its members and the wider industry, and BPCA will remain the beating heart of best practice within public health pest management for many, many years to come.

I wish you all the very best for the future.

TOM HOLMES

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CPD FOR 2018: 2 POINTS
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BPCA provides at least one article in every issue of PPC as an online CPD quiz. Look out for the logo on the relevant page, and in the contents list. At least three points are given for each quiz, and we even pass your results to BASIS for free within a few days. To access this unique benefit, simply join the BPCA Affiliate Scheme via **bPCA.org.uk/affiliate**

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Small pieces to make the big picture

In this Chief Exec viewpoint, I'd like to do some straight talking about BPCA Registered, CPD schemes, and the sticky issue of what 'professional' looks like.

Firstly, BPCA Registered, which is our new professional development framework developed by, with and for BPCA members.

The only criticisms I've heard to-date have been through unfortunate opinion pieces in other trade journals. It is clear to me that BPCA Registered exists because our Servicing members have asked for it, time and time again. We're a membership organisation; our primary responsibility and accountability is to our members. It is not to trade mags, and certainly not to other organisations who don't currently even have a CPD requirement.

Secondly, on CPD schemes – Basis is an organisation which provides a range of registration schemes for the agricultural sector. Basis stepped in to record CPD points for our industry by creating another register at the time that this was needed.

BPCA Registered is responding to the demands of the sector which has clearly outgrown the existing Basis Prompt CPD point collecting register.

BPCA Registered is currently only for BPCA members, and as members, you have a choice whether you move to use your new scheme or whether you stick with whichever CPD scheme you use. It is your business decision! As with every other profession, CPD is an integral element of what sets you apart as being a professional.

And that moves us onto the definition of 'professional' – we're working at a European level with the Confederation of Pest Management Associations (CEPA) to define what a professional pest manager actually is. We want to get fellow European associations to support and adopt a single framework for this definition.

That framework has started with a definition being developed based on minimum training and minimum qualifications for professional pest controllers. At the European level, we're also investigating an online competency assessment for professional pest controllers as well as defining a common

approach to CPD. This work will not happen overnight, but it will happen.

Thankfully, BPCA members have little to worry about. I'm confident that what we have in place by way of training, qualification and CPD requirements will already meet the European requirements.

Being a professional pest controller goes hand-in-hand with quality management. I've been asked regularly if there'll ever be an international quality standard for pest control. Well, that's also being worked towards.

To get global companies firmly behind a quality standard it needs to be an International Standard (ISO) rather than a European Standard (EN) or a British Standard (BS). BS EN16636 is both a British Standard and a European Standard. Should we sit back and wait? Absolutely not.

The greater the uptake of the European Standard the greater the likelihood of the ISO status being granted.

So what is stopping that from happening? Basically, we need our fellow associations in North and South America and Asia to support the adoption of the standard, and this work has started with CEPA leading the way between these global associations. We're also creating a formal global pest management coalition, and our thanks go to NPMA in the USA for leading this work.

While we have had notable achievements in getting the UK and European buyers of pest management services asking for BS EN16636, there is no doubt that the potential of getting 'ISO16636' will shift the whole debate about professional pest management to a different level. We have already been told that while global companies support BS EN16636, it is difficult for them to put a British or European standard in a global specification. Any global specification requires things that can be achieved globally.

IAN ANDREW
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BPCA President to stand down

Tom Holmes, current BPCA President will stand down from his role as he leaves the industry.

Tom (above right), who is Head of Durable Product Development at Pelsis Group was elected BPCA President in June 2017 after twelve months as Vice President, following the resignation of the then President Paul Rodman due to family commitments.

Tom's formal two-year tenure as President would have ended in June 2019, unless he sought re-election. However, after accepting a new position outside of the industry, Tom won't be employed by a BPCA Member organisation and therefore will stand down when he finishes with Pelsis Group in January.

Tom took on the presidency role after serving as the Chairperson for BPCA's Manufacturing and Distributor Committee; he has held a position on the organisation's Executive Board since 2014.

On his resignation, Tom said: "It's with the deepest regret that I must step down from the position of President of BPCA, as I'll be leaving the industry in late January.

"I'm hugely proud of the work that we have initiated together at BPCA over the last year, as we work towards delivering an ambitious,



bold and highly-relevant strategy for our membership. The necessity for me to leave the presidency is one of the biggest regrets of my change in circumstance. However, I remain confident that under the leadership of Ian and his excellent staff team, BPCA will continue to be the beating heart of best practice within the public health pest management sector, for the betterment of its members, and the wider industry."

As President, Tom has steered BPCA in a new strategic direction, overseen the recruitment of a new CEO and chaired an Executive Board which actioned such initiatives as passing BS EN16636 audits as part of membership criteria, BPCA Registered, and challenging the organisation to engage better with it's members.

Ian Andrew, BPCA Chief Exec said: "Yes, this is disappointing news for BPCA, but also for the industry. The things Tom has achieved since taking on the role as President are significant. Since I joined the organisation earlier this year I have been impressed by just how focused the Executive Board is, ably chaired by Tom, in putting all BPCA members at the heart of all discussions.

"On behalf of all BPCA members and supporters, I want to thank Tom for his time and effort over the years with the Association, and wish him the very best for the future."

At its November meeting, BPCA's Executive Board appointed Philip Halpin (pictured left) of Countrywide Environmental Services as President following Tom's departure until next June's AGM in Yorkshire.

Rentokil Initial wins CBRE 'Innovation of the Year' Award for PestConnect system

BPCA member Rentokil Initial's PestConnect system has won the Innovation of the Year Award at CBRE's Annual Supply Chain Innovation Competition 'The Great Idea'.



CBRE is the world's largest commercial real estate and investment firm, and the award recognises service providers in its supply chain who demonstrate innovation and best practice.

PestConnect is a 24/7 real-time pest control monitoring service, enabling Rentokil technicians to manage rodent activity remotely. The CBRE judges were impressed by the solution, which was effectively used to control a mouse infestation in a 21-floor building in London's financial district.

NEW MEMBER BENEFIT: Recruitment offer



BPCA has reached an agreement with pest control recruitment company Springboard Recruit to offer members preferential rates. Springboard Recruit helps pest management companies source staff to fill job vacancies quickly.

Normally, this service would cost 15% of the employee's first-year salary. BPCA members will get a special rate of 10% (a saving of £1,250 on a £25K salaried technicians role). You'll also get a free replacement guarantee, meaning if you are not satisfied with the candidate, Springboard will replace the candidate for free within

the first three months.

You will not be charged a fee if the employer chooses not to hire shortlisted candidates at interview.

This member benefit is available to use for all membership categories, but will be particularly useful for ambitious and growing BPCA Servicing Members.

If you'd like help from Springboard, contact them to find out how they can help with your recruitment. Remember to ask for your BPCA member discount. sbrecruit.co.uk/contact-us

eBay, BPCA and Crop Protection Association leading the way on stewardship of online pesticides sales

BPCA, Crop Protection Association, and eBay have worked together to help stop unauthorised pesticide sales happening online.

After several meetings, it's now clear that all three organisations are working towards the same goal – to protect non-target species from the misuse of professional use rodenticides, and to keep all professional pesticides in the hands of adequately trained and certificated professionals.

Since the meetings, eBay has clarified its policies for the sale of pesticides, meaning that now only authorised eBay shops may sell pesticides. Person-to-person sale of pesticides is prohibited.

eBay shops will continue to be allowed to sell pesticides, assuming they meet eBay's policies and UK law, including CRRU Stewardship requirements.

RESPONSIBLE ONLINE SALES

Dee Ward-Thompson, BPCA Technical Manager said: "We've never wanted to stop people selling professional rodenticides online, we just want them to be doing it responsibly, legally and to only qualified and certificated professionals. We're thrilled that we had the opportunity to sit around a table with eBay and talk to them about the importance of pesticide stewardship.

"eBay was very welcoming, helpful and supportive throughout the process. We're all confident that the changes we've put in place will help stop a significant amount of illegal pesticide sales."

Wendy Gray from CPA (Crop Protection Association), said: "Protecting human health and the environment through the responsible selling and use of crop protection products is our highest priority. Our products are safe when used according to the instructions on the label.

"As an industry we are concerned about the sale of professional products to amateur users

Who can buy and sell professional pesticides on ebay?

| Type of buyer | Type of seller | Ruling | Action |
|---------------|----------------|----------------------------|----------------------------|
| Individual | Individual | Listing removed | Listing removed |
| Company | Individual | Must check for certificate | Must check for certificate |
| Company | Company | Must check for certificate | Must check for certificate |

online. This is why we are working with eBay and other internet companies to close any loopholes and ensure that professional products are only sold to individuals who ensure that the end-user holds the relevant specified certificate(s)."

Professional pesticide users must be trained and hold the relevant certification so they understand and meet all the legislative requirements in place to protect human health and the environment when using professional pesticides.

Although manufacturers and distributors must check the qualifications of anyone trying to buy professional use rodenticides, both CPA and BPCA have heard the frustrations of professional pesticide users and their dismay at seeing professional use pesticides being made available, through sites like eBay, to individuals who do not realise that it is an offence for anyone to purchase pesticides authorised for professional use unless they have ensured that the intended end user holds the relevant specified certificates.

With 13.4m listings added weekly by mobile alone on eBay it's a difficult job to monitor everything being sold on the site – however anyone who suspects a shop of doing something illegal should report it to BPCA technical@bPCA.org.uk or CPA info@cropprotection.org.uk

The change in policy and the direct connection the Association's have made with eBay, should make it easier to stop unauthorised sale.

NEXT STEPS

Wendy Gray from the Crop Protection Association said: "Although these meetings mark a big win for professional pesticide users and British Wildlife,



there's still a long way to go. Other large online retailers need to follow suit and commit to highlighting to purchasers the legal requirements around the use of professional pesticides. It took us a fair amount of time to get our foot in the door with eBay, but now we'll be knocking on other retailers' doors and asking them to ensure the responsible sale of professional products online."

Dee said: "Ultimately, irresponsible online sellers are getting their products from somewhere. We are asking all PPP manufacturers and distributors to ensure purchasers are aware of their legal obligations along the supply chain.

Both BPCA and Crop Protection Association allow online retailers into membership and can therefore support the responsible sale and use of pesticides."

eBay said: "We are happy to be working with BPCA and Crop Protection Association to help prevent the sale of unauthorised pesticides happening online. eBay has no tolerance for illegal pesticides on our marketplace and we would encourage other online retailers to follow suit in our efforts."

BPCA reaches 500 servicing company members

The Association has last month reached the significant milestone of 500 full servicing member companies.

BPCA last year celebrated its 75th anniversary after being set up in 1942 and is now celebrating reaching the 'fantastic' milestone after Kent-based firm Hademly Pest Control graduated into membership from the Association's Probationary Scheme.

Kevin Higgins, BPCA Membership

Manager, said: "This is a fantastic milestone for the Association and its members to celebrate. As someone responsible for both membership retention and growth, I've had 500 in my sights for some time but I didn't know if we'd make it this year or not. Most of me thinks, and the rest of me hopes, it's a representation of just how well respected the membership logo is becoming, both in our industry, but also in the eyes of customers."

BPCA reached 400 servicing member companies in late 2015 and passed through 450 servicing members in June 2017.



Rokill's Patrick wins national award after week with BPCA

Patrick Poore of Poole based BPCA Member Rokill achieved the highest marks in the RSPH Level 2 Award for Pest Management examination across the last 12 months, throughout the UK. Patrick attended the General Pest Control (GPC) course with BPCA in December 2017.

He achieved an overall score of 205 (72, 73, 60) out of 225 – that's an impressive 91%.

On receiving the award Patrick said: "It's fantastic for the company and me to be recognised for getting the highest score. I was surprised and pleased to achieve a distinction. I genuinely enjoyed my week with BPCA on their GPC course. Paul Westgate is an excellent tutor, and his methods helped all types of learning styles, ages and abilities. I hope to be able to learn from him again in the future.

"I guess one thing I did that gave me a good chance of being successful was taking the time to think through my jobs for Rokill and attempt to apply the knowledge. We're not here to just top up bait stations, so it was important I understood legislation and the context behind it."

Patrick joined the pest management industry in September 2017 moving from a career in support work at Marwell Zoo. Patrick is now looking to move forward with Rokill and gain the required experience to take his Certificated Field Biologist. Patrick praised the Rokill team, saying: "We've got an excellent technical team, and it has been brilliant being able to draw from the wealth of Brian Duffin's knowledge. Our approach to pest management is to work with the client and other suppliers who can affect the success of IPM. The next 12 or so months are set to be interesting with continuous double-digit growth bringing new sites and staff."

Patrick was presented with his award by Natasha Kaplinski at the RSPH awards ceremony in London on 13 September.

Many congratulations Patrick!

bPCA.org.uk/training



Bayer helps educate the scientists of the future



As the importance of educating children in scientific subjects and encouraging practical learning

rises up the agenda, BPCA member company, Bayer is working to help pupils learn about some of the basic scientific principles that underpin many pest control practices.

During early October, over 100 local primary school children and teachers visited the Bayer Environmental Science headquarters in Cambridge, for practical science lessons from using a microscope and testing honey, to the role of bees and their life cycles, delivered by the 'Baylab'.

Steve Bishop, Bayer group Product Manager, explained that the Baylab provides an enhanced learning facility, that is normally based in Reading. He said: "The roadshow has been a huge

success, with students and teachers alike. The wider context for the pest control industry is an increasing pressure from the regulatory authorities. Not only have we lost key management products, but pest controllers are being challenged to minimise rodenticide and insecticide use.

"Therefore, the industry needs a steady stream of new professionals to continue and build on the research and development that's required to support pest control for years to come. This is why we're so passionate about awakening an interest in science among young people from all backgrounds at an early age, to boost their confidence, provide inspiration and aid in development."

Steve went on to say that he hopes the children and teachers went away with a positive attitude, not only towards science, but to the work that goes into maintaining the environments in which they work, rest and play.

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NORDISK INNOVATION

British Pest Management Awards ceremony just made PestEx that little bit bigger

BPCA has decided to move the BPMA awards ceremony from Giant Robot on Canary Wharf to PestEx, the pest management show, because of the huge interest in tickets and increase in nominations.

PestEx is the largest gathering of pest management professionals in the UK, and capable of accommodating everyone who wants to see the awards.

Giant Robot will now host a BPMA and PestEx afterparty where nominees and PestEx visitors alike can unwind and celebrate the sector together.

After nominations closed, the BPMAs received three times more entries compared to the inaugural awards – surpassing everyone’s expectations.

Ian Andrew said: “We took the decision to bring the British Pest Management Awards ceremony into PestEx based on demand. We simply would not have been able to seat everybody at the same time at Giant Robot.

“At the end of PestEx day one, we’ll have a drinks reception and short ceremony to recognise the awards. Those with tickets will then move on to the Giant Robot afterparty to continue the celebrations.”

The BPMA ceremony will be held at 4.15pm on day 1 of PestEx in the large technical theatre after the exhibition closes at 4pm.

The ticketed afterparty will start from 6.30pm at Giant Robot, Canary Wharf. People heading to the after party after the ceremony can do so via cable car, DLR or a short taxi ride.

Jo James, BPCAs Event Manager, said: “Giant Robot lends itself really well to attendees and exhibitors from the exhibition carrying conversations on into the evening, in a much more informal setting.

“Based on interest, tickets will sell out, so book early to avoid disappointment! As it is, the stand space at PestEx is now totally sold out, so we’re very excited about the 20-21 March!”



Each attendee at the afterparty will automatically be entered into a prize draw to win a Parrot Bebop 2 FPV drone (worth £549.99) as well as be able to enter other prize draws on the evening, and enjoy a range of activities in the venue.

AFTERPARTY TICKETS AVAILABLE NOW

Tickets are £79 for BPCA members and £99 for non-members.

The price includes a drinks reception, five drink stamps, a food passport (four portions from ‘street food’ style vendors), live entertainment and one entry into the prize draw. Tickets are strictly limited.

bPCA.org.uk/party

Updated resistance guidance for the Norway rat

RRAG’s latest paper on anticoagulant resistance in the Norway rat and guidance for the management of resistant rat infestations in the UK has been produced by Alan Buckle (University of Reading), John Charlton (John Charlton Associates), Adrian Meyer (Independent Consultant) and Colin Prescott (University of Reading), on behalf of the wider group.

The paper incorporates an overview on background, history and development

of resistance, and reference tables of VKORC1 mutations and locations, and also the effectiveness of active substances against the various mutations (see table).

Superseding version 1 which was published in 2015, Version 2 RRAG now hope to be able to update their other existing public paper on house mouse resistance in the not too distant future.

Read the full document at bPCA.org.uk/rrag



Cleankill toasts success at 2018 Croydon Business Excellence Awards

BPCA Member company, Cleankill Pest Control was named Croydon’s ‘Best Employer’ at the 2018 Croydon Business Excellence Awards. In addition, the company was also Commended in the category for ‘Best SME’.

Commenting on the award, Managing Director Paul Bates said: “We are extremely pleased to have been recognised as a great employer. When Cleankill was set up it was with an ethos of being a good, proactive place to work that provides excellent customer service. To have this acknowledged at the Croydon Business Excellence Awards means a lot to us.”

Table 2

The different anticoagulant active substances and their effectiveness against the resistance mutations found in rats in the UK. A red box means that the active substance should not be used against that strain and a green box means that it may be used with a reasonable expectation of a successful outcome.

| Active substance | Resistance mutation and where found | | | | |
|------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------|---------------------------------------------|-------------------------------------|
| | L128Q Scotland, Yorkshire, Lancashire | Y139S Anglo-Welsh border | Y139C Gloucestershire, Norfolk, Lincolnshire, Yorkshire, SW Scotland | L120Q Hampshire, Berkshire and elsewhere | Y139F Kent, Sussex and elsewhere |
| Warfarin | Red | Red | Red | Red | Red |
| Coumatetralyl | Red | Red | Red | Red | Red |
| Difenacoum | Green | Green | Green | Green | Green |
| Bromadiolone | Green | Green | Green | Green | Green |
| Brodifacoum | Green | Green | Green | Green | Green |
| Difethialone | Green | Green | Green | Green | Green |
| Flocoumafen | Green | Green | Green | Green | Green |

BPCA add Lantra Level 2 Award to membership criteria

The Lantra Level 2 Award in Pest Management is now an accepted qualification for membership of BPCA after the Executive Board voted in favour of incorporating it into criteria at its September board meeting.

The Lantra Level 2 Award appears on the OFQUAL register at the same level as the RSPH Level 2 Award in Pest Management and includes four units on control of rodent, wildlife, bird, and insect species.

The Lantra qualification will now join the RSPH Level 2 Award in Pest Management, RSPH Level 2 Certificate in Pest Control, BPC Diploma Part I, RSPH Certificate in Pest Control, NVQ in Pest Control, and the IPCA Diploma as acceptable qualifications technicians may hold for their company to be accepted into BPCA membership.

DIFFERENCES AND SIMILARITIES

While requiring fewer learning hours, the Lantra Award meets the OFQAL requirements and rather than having a stand-alone health,

safety and legislation module, these aspects are incorporated throughout the qualification. In addition to the one-hour, 40-question multiple choice and short answer exam, the main difference between this qualification and the RSPH Level 2 Award is the use of professional discussion as a method of assessment.

In the discussion, the examiner poses questions to the candidate in spoken form and the candidate has to answer in such a way as to demonstrate sufficient knowledge and understanding of the subject.

The separate professional discussion assessment is seen as a valuable alternative assessment methodology for the practical occupation of pest control, and something which Ian Andrew, BPCA's CEO feels should be celebrated. He said, "The Lantra award offers an alternative method of

assessment by way of a practical discussion, which is a valuable addition for our membership. *

"While we still very much value RSPH qualifications, it is important that our members have a choice of qualifications for their technicians."

Having sat the RSPH Level 2 Award himself, Ian continued:

"Personally, I think we need to remember pest management is a practical profession, and we need to recognise the requirements for getting into the sector reflect that."

BPCA Membership criteria for employees involved in the eradication and control of pest species stipulates they must be on a recognised CPD scheme and hold a recognised qualification – such as the Level 2 Award in Pest Management.

...AN ALTERNATIVE METHOD OF ASSESSMENT BY WAY OF A PRACTICAL DISCUSSION, WHICH IS A VALUABLE ADDITION FOR OUR MEMBERSHIP

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- The importance of using BPCA members
- Our "Be protected. Professionally." campaign
- Professional training and qualifications
- Raising the profile of public health pest control.

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Stick(er) around, this could take a while

Changes to monitoring and bait box stickers

Some rodenticide labels now refer to a requirement for labelling monitoring and bait stations with specific information. This has come directly from the regulators of these products, and there is not too much the manufacturers can do about it - they just need to make sure the users are complying.

The changes aren't particularly complicated. However, like many pest controllers have pointed out, it's going to take a while to get stickers on all relevant boxes.

As seems to be the common theme to most of the technical information we give: always read the label of your product! Fully and thoroughly and make sure you are in full compliance.

If a rodenticide says you have to stick one of these new labels on to your bait box, then this is what you must do.

You can discuss this with the suppliers you purchase stickers from.

The information needed on the stickers is shown here...



A note about contact details

On some labels that are available for purchase, the wording states to contact a poison centre which does raise concern as on the HSE website for information about National Poison Information Centres (NPIS) it clearly states: "NPIS do not receive calls from the general public". This is another discussion point worth raising when speaking to your suppliers.

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Niall Moore, Non-Native Species Secretariat

ACQUISITION, INCUBATION AND TRANSFER OF BACTERIA BY HOUSEHOLD INSECTS
Matthew Davies, Killgerm
Federica Boiocchi, Aston University, Birmingham

A WORLD WITHOUT PESTICIDES
Alex Wade, Pelgar

RODENT CONTROL FOR 2020 AND BEYOND
Sharon Hughes, BASF

COCKROACH FORAGING BEHAVIOUR AND BIOLOGY
Steve Broadbent, Ensytex

PROTECTING JERSEY FROM ASIAN HORNETS
Absolute Pest Control
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BUILDING GREAT PEST MANAGEMENT PROGRAMMES
Richard Moseley, Bayer

WINNING BIG: SLAS AND TENDERING
Kevin Higgins, BPCA
Dee-Ward Thompson, BPCA

10 YEARS OF RAT AND MOUSE CONTROL PROCEDURES
Paul Charlson, National Pest Advisory Panel (NPAP), CIEH

BUSINESS THEATRE

OUR TERMS AND CONDITIONS APPLY...MAYBE?
David Quinton, Which?

RODENT RISKS: CLOSURE AND PROSECUTION STORIES
Dr Belinda Stuart-Moonlight, Chartered Environmental Health Practitioner and expert witness

HOW TO HACK SMART HOMES AND BUSINESS
Tony Gee, Pen Test Partners

USE THE LAW TO SELL YOUR SERVICES
Paul Westgate, Westgate Pest Control

SITE-SPECIFIC PEST RISK ASSESSMENTS
John Lloyd, Technical Consultant and Company Entomologist

WHEN IT GOES WRONG
Martin Ball, Health and Safety Executive

DON'T GET CAUGHT IN THE GDPR TRAP!
Louise Coldwell, Killgerm

SHOULD I GIVE UP, OR JUST KEEP ON CHASING PAYMENTS?
Peter Wallwork, The Credit Services Association

4½ STAR PEST MANAGEMENT: ONLINE MARKETING
Ben Massey, BPCA

More talks to be added. Running order announced Jan 2019. Seminars subject to change. Up-to-date info at pestex.org/seminars

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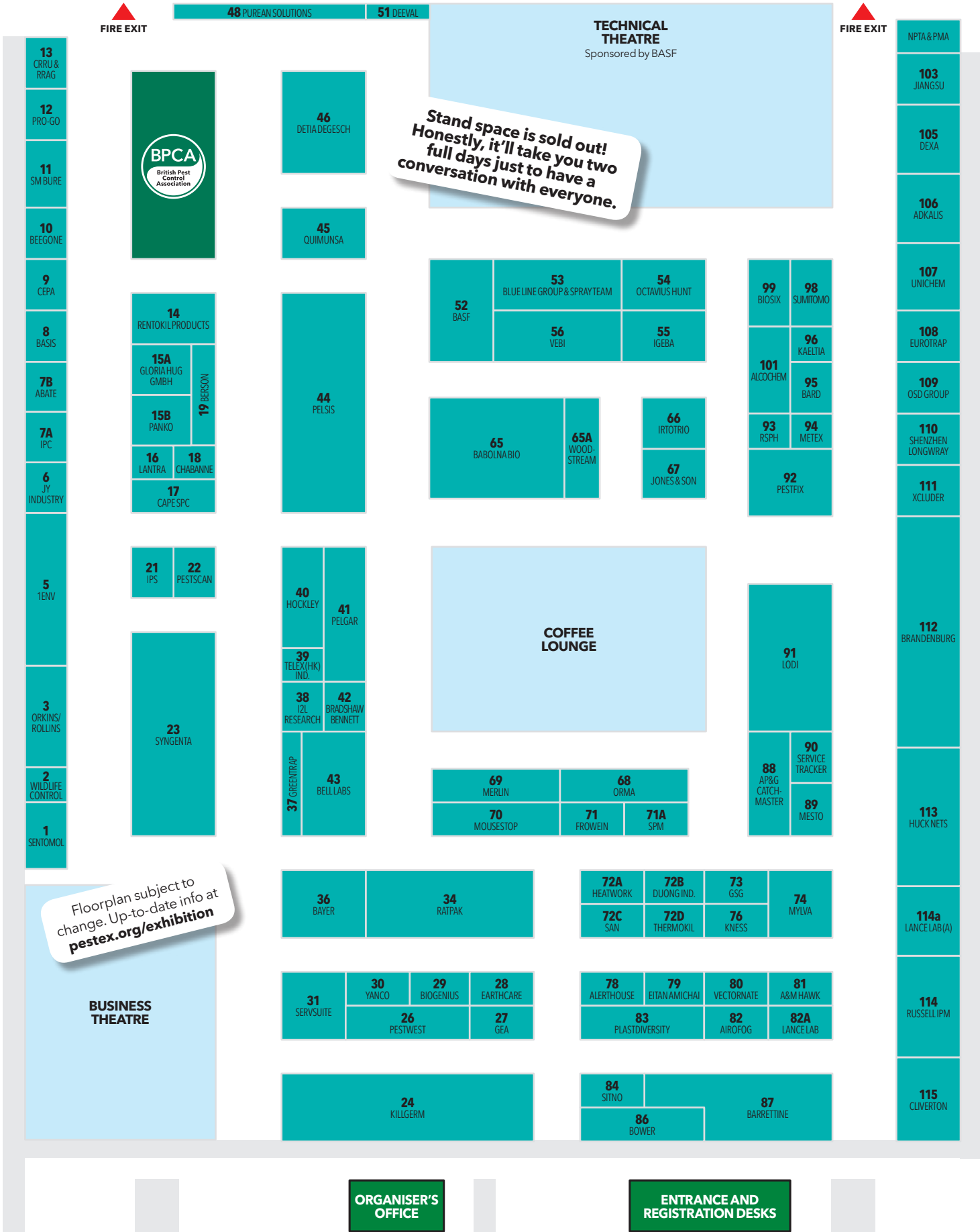
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AWARDS

BUSINESS TECHNICAL SEMINARS

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Formulation focus for gel bait performance



While overall results are extremely good, understanding how different formulations work can help select the most appropriate products and help to get the best from them, reports Syngenta Technical Manager, Dr Kai Sievert.

Our research suggests gel baits are now utilised by pest management professionals in over 80% of cockroach infestations, and around 70% of call outs to tackle ant control issues.

I would like to highlight that the protein-based formulation of cockroach gels is inherently more stable and easier to handle, compared to syrup-based ant gel baits.

The problem is that ants are principally attracted to take moist baits, so for products to remain effective they have to stay in a semi-liquid form for longer, compared to cockroach gels where the pests will continue to take a palatable bait long after it has dried.

In my trials this summer, German cockroaches continued to find Advion Cockroach Gel bait that had been in-situ for over 12 months suggesting that the gel remained highly palatable, and completely effective in delivering 100% control.

There is definitely a clear difference in the palatability between the different gel bait formulations, and between the behaviour of different pest species and populations.

We would always advocate that operators trial different products in their specific situations, and find which one works most reliably for them.

TARGET PEST ID

Identification of the target pest is important, since some gel bait formulations are more active on some species than others, particularly with ants. Cockroach gels are more accepted, with Advion Cockroach Gel effective against all major UK species, including German, American and Oriental species, for example.

With all ant gel baits more susceptible to drying out and losing attractiveness to ants, bait can also be put into protective capsules to retain moisture. Capsules could be bespoke bait stations, or simple drinking straws or small plastic vials fixed in place where ants are active. However, more frequent reapplication may be necessary.

For ant colonies, operators will sometimes combine an initial spray application for

rapid knock-down of populations, followed up by gel bait application. However, in my experience, this approach has a risk of stopping ants feeding on gel baits for several days, and even of triggering an ant colony to split up - which may give a temporary respite, but greater problems in the long run.

Wherever possible, a useful approach with cockroaches is to physically Hoover as many as possible from the environs, to reduce initial numbers, and then applying Advion Cockroach Gel where there is activity.

SECONDARY CASCADE

The formulation of the gel bait is important, since for ants you want to get as much as possible adhered to the workers and carried back to the nest, where other clean and feed nesting ants are to achieve a cascade effect of secondary kill.

With cockroaches, the aim is to give pests that have consumed bait time to get back to their harbourages, where they will die. The cannibalistic nature of cockroaches means they will eat the dead pests, and thereby consume a lethal dose of insecticide.

My research has calculated that, for each cockroach killed directly by Advion Cockroach Gel, up to 60 other roaches can be controlled through this secondary effect.

Customers need to be aware that whilst the initial numbers of cockroaches will start to decline soon after they feed, it can still take weeks for the cascade effect to work through the population. However, the end result with Advion Cockroach Gel is almost always total control of the existing population.

BIOACTIVATION

In addition to the formulation of a gel bait, professionals need to consider the active ingredient it includes. Some gel baits contain a broad-spectrum insecticide, such as imidacloprid and fipronil.

The active indoxocarb, as in both Advion Cockroach and Advion Ant Gel, however, is effectively differentiated by target and non-target organisms. Thanks to its

unique mode of action, the indoxocarb molecule is only converted into its insecticidal form by interaction with enzymes in the target species' gut. Once activated, the molecule then binds to the target site inside the insect, to block its cell sodium channels. The insect experiences paralysis, followed by death.

Since other non-targets are unable to efficiently convert indoxocarb, if they were to inadvertently ingest bait it would be unlikely to have any serious detrimental effect.

That makes the Advion gel baits particularly well suited to use in homes, factories and food preparation areas, following the label instructions.

ACTIVE SWITCHING

My recent discussions with professionals indicates few consider the importance of active ingredient rotation to reduce the risk of resistance developing in cockroaches - despite related experiences with rodenticides. Fortunately, ants do not develop a resistance.

Where a single gel bait active is used repeatedly in the same situation, any mutations of pest populations that are less susceptible to an active could quickly increase in number.

If one brand appeared to be less effective, there is little point switching to another brand with the same active.

While we have seen no reduced efficacy or resistance to indoxocarb in Advion gel baits, it is good practice to rotate product use and actives in any cockroach population over a period of time.

Gel baits remain a key tool for targeted control of insect pest populations. Better understanding of how the different formulations and actives work, and how that can be utilised in practice, will ensure operators consistently achieve the best possible results for customers.

www.syngentappm.com

...THIS APPROACH HAS A RISK OF STOPPING ANTS FEEDING ON GEL BAITS FOR SEVERAL DAYS, AND EVEN OF TRIGGERING AN ANT COLONY TO SPLIT UP...



CONSULTANT STORIES

One flew under the cuckoo's nest

SOMETIMES, THE SOURCE OF INSECT CONTAMINATION CAN BE DIFFICULT TO ESTABLISH, BUT IT IS CRUCIAL IN MANY CASES, AS RESPONSIBILITY CAN PROVE COSTLY FOR SUPPLIERS.



The humble cuckoo wasp solves a pest-related dispute



In this new PPC feature we delve into the travel diaries of John Lloyd, Technical Consultant and Entomologist at BPCA consultant member company, IPMIC, and ask him to tell us one of his 'Consultant Stories'.

Everyone understands the seriousness of pest contamination of food. But sometimes the contamination of food packaging, especially in transit from one part of the world to another, can also cause grave economic and business loss to the parties.

BACKGROUND

A single cuckoo wasp (family Chrysididae), caused a food industry contamination complaint when a food company in Asia found it. The wasp was discovered on a cardboard layer sheet in a pallet of food packaging shipped from the UK to Asia.

Also known as the ruby-tailed wasp, the cuckoo wasp is strikingly attractive with its bright, iridescent red, green and blue colouration. You could easily assume this insect to be of exotic or tropical origin. However, it actually occurs worldwide and throughout the Palearctic region including Europe and Asia.

CUCKOO WASP HABITAT AND BEHAVIOUR

Cuckoo wasps have an external life cycle and are kleptoparasitic insects. They lay their eggs in the nests of other insects, especially potter wasps (eumenids). Once their egg hatches, the larva eats the host larva, then pupates and emerge as an adult.

To protect themselves from being stung by their prey during egg laying, cuckoo wasps have a tough outer body surface and can uniquely curl their body to reduce the risk of stingers penetrating their body segments. This curled up body posture is a characteristic feature to their identification.

PROBLEMS OF FOOD PACKAGING CONTAMINATION

In the food industry, any insect contamination of food packaging by stored product insects or from 'casual intruders', can pose a serious risk to food safety.

Such instances should be investigated, and corrective actions immediately adopted to prevent a recurrence.

Sometimes, the source of insect contamination can be difficult to establish, but it is crucial in many cases, as responsibility can prove costly for suppliers.

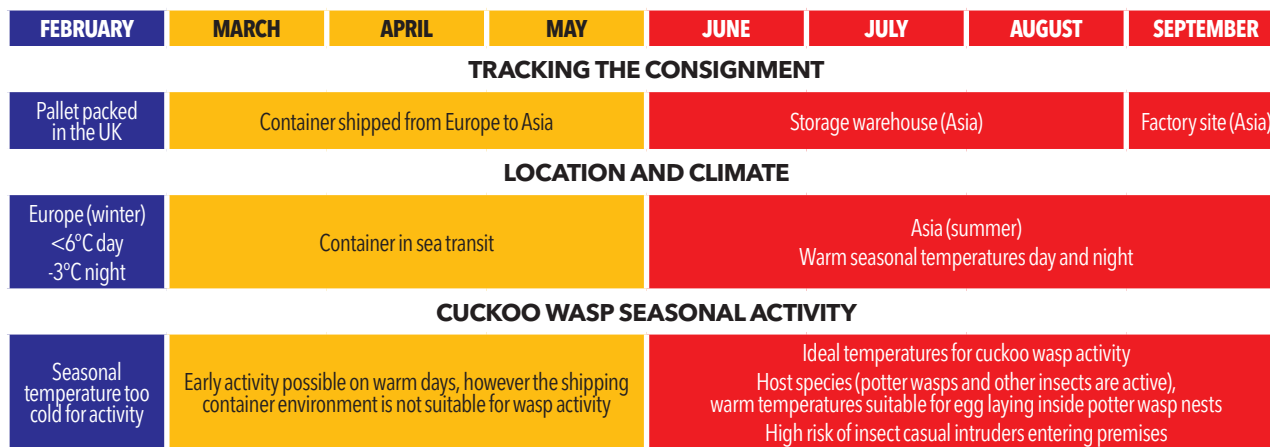
CONSEQUENCES OF INSECT CONTAMINATION

In addition to breaching food safety standards and codes of practice, incidents of insect contamination can have a negative commercial impact on suppliers by causing strained relations between supplier and food company or the supplier may incur heavy financial penalties.

Following a contamination incident, suppliers are usually under pressure to demonstrate due diligence by immediately implementing additional preventative measures and controls. Sometimes these can be very costly.

Suppliers of contaminated food packaging may incur additional costs and face consequences such as the rejection of a pallet or rejection of a whole

THE TIMELINE AND INVESTIGATION



consignment, a reduction in future trade volume, or the loss of future business altogether, to say nothing of high profile lawsuits or significant insurance claims.

If the goods get rejected, returned or disposed of, this may cause direct financial loss for the supplier, which is especially costly if goods have been shipped abroad.


Although such costs and losses frequently occur in the food industry, the pest contractor might not be informed and may not be sensitive to these issues when assessing the control measures for a site. It is therefore essential that pest controllers follow best practice and monitor sites for non-pest species as well as the more obvious, critical pest species that are associated with food sites or with suppliers in food-related industries.

RESPONDING TO INSECT CONTAMINATION INCIDENTS

When insect contamination incidents occur, it is essential to identify the species concerned and to thoroughly review details, dates and events to establish what has happened, where and how.

For food industry suppliers, this could help establish if the cause of contamination occurred at their site, or if contamination occurred after the goods left their factory.

CUCKOO WASP: CASE REVIEW

In the case of the cuckoo wasp, a complaint was raised, and the food company in Asia wanted to reject the consignment shipped from Europe as it believed the factory, located in the UK, to be the source for the insect contamination. 



...THE FOOD COMPANY IN ASIA WANTED TO REJECT THE CONSIGNMENT SHIPPED FROM EUROPE...

An incident review was carried out by IPMIC and details revealed where the likely point of contamination occurred.

FINDINGS OF THE INCIDENT REVIEW

In February, on the day of production, the daytime temperatures were <6°C and -3°C at night.

These temperatures are too cold for cuckoo wasps to be active in the winter.

From June to September, the consignment was in Asia where the warmer summer temperatures favour cuckoo wasp activity and breeding. The warmer temperatures mean that host insects are active and breeding in warm sandy burrows, and this is when the female cuckoo wasps begin hunting for host nest sites in the ground.

The cuckoo wasps are active during warm seasonal temperatures.

Given the dates in question and seasonal changes in environmental temperature, it is likely that the point of contamination occurred in Asia.

Although not active in the winter time in Europe, cuckoo wasps would be active during the warmer summer temperatures in Asia.

LIKELY ROUTE OF CONTAMINATION

A top-cover sheet (barrier sheet) was present over the pallet to reduce the risk of insects falling or entering from above. That meant the packaging contamination, in this case, was likely to have occurred from the base of the pallet, as cuckoo wasps tend to search for their host nest burrows at ground level.

It is therefore likely that on this occasion, the insect gained access into the packaging from the base of the pallet once the consignment had arrived in Asia.

CONCLUSION

Due to the species identification and case review, the supplier in the UK was found not to be the likely source of insect contamination within the supply chain.

This cuckoo wasp incident highlights the significance of the presence of non-pest species and casual intruder insect species on food premises and in food-related industries. It illustrates the importance of excluding such pests from manufacturing or warehouse environments and demonstrates the importance of species identification in dispute resolution, as this can provide a key in determining the point or source of contamination.

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ALL CREATURES GREAT & SMALL

Tiny pest in and around the home

When people think of house pests, it's usually mice or cockroaches. We often overlook the tiny insects which may be living in British homes and eating your client's clothes, furniture, books and even the house itself. Consultant entomologist, David Pinniger, shares with us some of the small but mighty pests you should keep an eye out for.

VERY SERIOUS DEATHWATCH BEETLE INFESTATIONS MAY NEED A STRUCTURAL SURVEY TO ESTABLISH IF REMEDIAL WORK IS NECESSARY.



Recorded distribution in 2013 of the death watch beetle *Xestobium*.

Man has been fighting tiny insect pests since Roman times when there are accounts of woollen clothes and feathers in centurion's helmets being eaten. Tudor monarchs employed servants to beat the moths out of their carpets, and people used cedar wood chests to try and stop pest attack. Victorian times saw the introduction into the UK of many new species, including webbing clothes moths, with the rise in trade around the world. This increase in species accelerated in the late 20th century with new carpet beetles and woodborers and even more so in the last 20 years, which may be due to climate change.

Materials which are vulnerable to attack by insect pests include:

- WOOL** Clothes, carpets and upholstery
- FUR** Clothes and taxidermy
- FEATHER** Clothes and taxidermy
- SILK**: Clothes and wall coverings
- DRIED PLANT** Material baskets, dried plants and dried food
- PAPER** Books, wallpaper and photographs
- WOOD** Furniture, picture frames and structural timber.

ADULT MOTHS CAN FLY INTO BUILDINGS THROUGH WINDOWS OR OPEN DOORS, AND SOME MOTHS CAN ALSO LIVE IN BIRDS' NESTS.



Moth damaged carpet.



Attic nest debris from the case study (pg21)



An online CPD quiz based on this feature is now available on the BPCA website. Each quiz is worth three CPD points – register to take part at bpca.org.uk/affiliate

CLOTHES MOTHS AND HOUSE MOTHS

The moths which live in houses and attack and damage clothes and carpets are all small and relatively inconspicuous compared to the larger moths we may see attracted to lights in the evening. It is essential to be able to identify which species your client has, as they have different habits and food preferences. Adult moths can fly into buildings through windows or open doors, and some moths can also live in birds' nests.



Image: David Short



Dead animals, such as birds and mice, may also provide a source of food and support a moth infestation. The adult moths do not feed and therefore cause no damage; it is the grub-like larvae which hatch from the eggs which feed and damage our clothes and other items. One generation takes a year typically to complete the life cycle but, with webbing clothes moths, development can be more rapid if they are warm and undisturbed.



A moth egg hidden in material fibres.

The pelleted excreta, or frass, produced by the larvae of moths is frequently mistaken for moth eggs. However, frass pellets are hard and opaque whereas moth eggs are very small and translucent and vulnerable to physical damage.

Contrary to popular opinion, clothes moth eggs will not remain dormant in textiles and then hatch many months later. Damage is more concentrated in dark, undisturbed areas, for example: wool carpet under heavy furniture, crevices and creases, behind lapels, in pockets or where carpets or textiles are folded. Clean cotton materials are generally not attacked.

TOP TIP

Adult moths are easy to kill with pyrethroid sprays, but larvae hidden in textiles are very difficult to control with insecticides. Clothes can be bagged and frozen for 2 weeks at -20°C to kill everything.

BISCUIT BEETLES

The biscuit beetle (or drug-store beetle in the USA), *Stegobium paniceum*, is a worldwide pest, particularly in warmer countries. It belongs to the same family as the common furniture beetle or woodworm, *Anobium punctatum*, but unlike woodworm larvae, which eat wood, those of the biscuit beetle bore into hard, dried vegetable material including biscuits, nuts and dried cereals. Adults are very small reddish-brown beetles and when it is warm they are very active and will fly to lights. The larvae are white and curved and tunnel through hard materials. The beetles emerge from exit holes which are very like furniture beetle holes and can bore through hard materials, including foil and plastic food containers to get out.



Adult biscuit beetle in gingerbread man.

Biscuit beetles have an amazing ability to survive and breed on drugs and spices, some of which are extremely toxic to other animals. Infestations have been recorded from a wide variety of food including cereals, biscuits, dried bread, pasta, chocolate, dog food, stock cubes, curry powder, cumin seed and cannabis. A large number of biscuit beetles can be produced from a relatively small food source. For example, hundreds of beetles were found in one building where they had been breeding in old mouse baits with wheat grains in trays. Biscuit beetle problems can be avoided by regular checking of dried food, storage in insect-proof containers and good stock rotation.

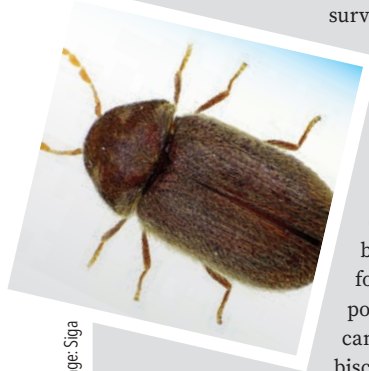


Image: Siga

TOP TIP

You need a magnifier to make sure you can tell the difference between biscuit beetles and furniture beetles (see case study overleaf).

SILVERFISH AND BOOKLICE

Many insects live in damp outdoor environments and if you disturb leaf litter or compost and look under stones or bark you will often see small creatures scurrying away.

A few, such as silverfish, fungus beetles and booklice, are also able to survive indoors with humans, but only if the conditions give them enough moisture. This means that when you find them in your house it may be a warning that you have damp issues.

Silverfish are general scavengers and feed on starch, animal glue, surface organic material and microscopic moulds on paper. The most common species, *Lepisma saccharina*, will damage wallpaper, books, labels and photographs. Damage is caused by the insect scraping the surface causing eroded areas of thinned and weakened paper which eventually will break through to make holes. They are useful indicators of damp problems, and if found in numbers in an apparently dry room, it is likely that there are high humidity micro-environments nearby. For example, they are frequently found in kitchens and bathrooms and live happily in the damper areas behind skirting boards, under vinyl and lino floor coverings and underneath sealed-in baths.

TOP TIP

If you find very large silverfish in London and Southern England it may be the grey silverfish *Ctenolepisma longicaudata* which is new to the UK. If you are not sure, get the identity checked by an expert.

The common booklouse *Liposcelis bostrychophila* is often found in small numbers in heated buildings. The adults are wingless and very small, less than 1mm. They feed on organic material and microscopic moulds on a range of substrates including flour, paper and cardboard. Although direct damage may not be so serious as caused by silverfish, large numbers of booklice will graze the surface of books and papers. To make things worse, squashed booklouse bodies will stain paper and may encourage moulds.

There have been a number of problems with booklice appearing in very large numbers in new or recently refurbished houses. The source has been traced to straw board used in walls and partitions. The straw used in the board may contain enough residual fungal growth to feed booklice and allow them to breed rapidly and then emerge from gaps around doors and light fittings. Although they will eventually die out, this may take some years and treatment is very difficult.

TOP TIP

Pyrethroid sprays will knock down adults if the problem is severe, but you also need to treat cavities and dead spaces with a desiccant dust.



Image: Christian Fischer

WOODBORERS

The main pests of wood in houses are the furniture beetle or woodworm *Anobium punctatum*. Adult insects do not eat wood and apart from the round exit holes, cause little damage, but the larvae live in tunnels in the wood and cause damage which may range from a few holes in a picture frame to the complete destruction of floorboards or roof beams.

Furniture beetle infestations will survive in cool, damp conditions, but do not thrive in dry conditions with humidity below 55%. This means that objects and structural wood in well-ventilated centrally-heated buildings are very unlikely to support woodworm infestation. Outbreaks of woodworm activity are usually confined to outbuildings or areas which are damp due to leaks, condensation or poor air circulation.

TOP TIP

It is very difficult to assess activity in autumn and winter. Fresh holes and frass will usually appear in spring and early summer.



Deathwatch damage.



Image: Gilles SanMartin

The deathwatch beetle

Xestobium rufovillosum is one of the most well-known and feared pests of timber. However, it is unlikely to cause problems in modern houses as it will only live in the old oak timbers found in historic buildings. Deathwatch beetle larvae will only develop in timber which has been damp and previously attacked by fungus, and an active infestation is often a sign that there are serious problems with water ingress.

People often panic when they find holes in furniture and structural timber because they don't realise that the infestation may be long dead. It is therefore essential to distinguish between wood with active infestation of eggs and larvae, and wood which just has exit holes but no longer contains anything which is alive.

TOP TIP

Paste tissue paper over areas which you think may be active and then check for fresh holes in spring. Very serious deathwatch beetle infestations may need a structural survey to establish if remedial work is necessary.



CARPET BEETLES



Image: David Short

There are two main types of carpet beetles: the small, round, ladybird-like varied carpet beetle *Anthrenus verbasci* and the larger, oval, black two-spot carpet beetle *Attagenus pello*, also known as the fur beetle.

The natural home of carpet beetles is bird and animal nests and dead animals. The adult beetles fly, and the females lay eggs in or near the food source. The larvae are very small when

they first hatch but grow quickly when there is a good food supply. They are hairy (hence the name woolly bears) and will eat almost anything made of animal protein. Particular favourites are fur, wool and feathers, but they will also eat horn and tortoiseshell. As they grow, they moult and shed their skins which often remain stuck to the material they are eating.

TOP TIP

Adult carpet beetles are often found on windowsills as they are attracted to light.

Carpet beetle damage.

**IN SUMMARY: WHAT CAN YOU DO?**

- Identify the species to find out if it is a pest and what is causing the problem
- Be aware of new species recently found, such as Australian carpet beetle and grey silverfish
- Find out if an infestation is active and where the insects are living by inspection or using insect traps
- Make sure the cleaning and housekeeping is targeting where the insects are living
- Isolate any infested objects and kill insects in clothing using bagging and freezing
- Only use insecticides if you are sure that the treatment will target the pest.

CASE STUDY

A night at the museum



Some years ago, a museum in northern England found small beetles stuck on their pest traps which were identified by the museum's pest contractor as furniture beetles.

The museum gallery had extensive exposed roof beams and so the contractor recommended spraying the wood as a precaution. The museum gallery was closed to the public for some days while the contractor sheeted over the display cases and sprayed all the beams with a residual insecticide.

After the treatment, I was given the traps to look at and found that all of the beetles were biscuit beetles with not a single furniture beetle to be seen. The beetles were not infesting the museum objects and so we then searched for a high starch food source nearby. One of the museum staff then mentioned there was a shallow attic above the gallery ceiling.

When we finally managed to gain access, it was full of bird nests and crusts of bread and other food dropped by the birds. This huge pile of infested debris was then removed by another contractor and the cleaned attic area sprayed with a residual insecticide. Result, no more biscuit beetles in the museum gallery below.

KEY LESSONS

Identify the pest. If you get it wrong, it can result in extensive time-consuming and costly treatments which are totally ineffective and unnecessary. The first company lost the museum contract.

LIKE THIS ARTICLE?

David Pinniger has written the book (literally) on pests in houses. David and Dee Lauder's 'Pests in Houses Great and Small' is a concise guide to some of the pest species that commonly infest historic houses, and solutions for



dealing with them. It's packed with identification tips and strategies for the removal of the pest and treatment options.

The book is priced at £14.99 and is available from Amazon and good bookshops including:

english-heritageshop.org.uk
septemberpublishing.org

A tsetse fly with its abdomen swollen after a blood meal.

Image: Oregon State University



FLY'S EYE VIEW

Sleeping
sickness
control



Scientist and zoology lecturer, Dr Roger Santer, is looking through the eyes of a tsetse fly to ascertain how they see colour. The research will inform the effective trapping of these blood-feeding insects and help to control the spread of a deadly tropical disease in Africa. The research approach Dr Santer describes is directly transferable to the control of other insect pest species.

Colours are as much created by nervous systems as they are physical properties of the world. This means that many animals perceive colour differently to humans, making their perception and use of colour a fascinating area for scientific research. But unravelling the mysteries of how animals see colour is of much more than just academic interest - it can be useful in the fight against disease by helping us to create more efficient coloured traps for disease vectors such as tsetse flies.

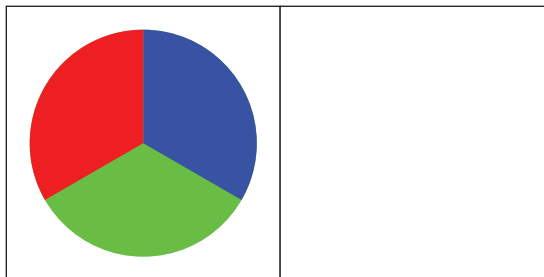
For humans, the visible wavelengths of light span from a little under 400nm to about 700nm, and these wavelengths correspond to a spectrum of colour sensations ranging from violet to red. To visualise this spectrum, think of a rainbow.

But to understand how those colour sensations actually come about, we also need to think about the light detecting machinery in the human eye. In the retina are two principal kinds of photoreceptor: the rods and cones. The rods are much more sensitive than the cones and can operate under dim light, but they do not contribute to colour vision - this is why our night vision is essentially greyscale. The cones, meanwhile, only operate under much brighter light conditions and it is their responses that provide the basis for colour sensations.

In humans, there are three kinds of cone cell, each sensitive to light in a different region of the visible spectrum. These are often called the blue, green, and red cones (though abnormalities in the green or red cones are reasonably common, resulting

in red-green colour blindness). Rather than detecting the exact spectrum of wavelengths entering the eye, our nervous systems generate colour sensations simply by comparing the relative responses of our three types of cone cell. We can easily demonstrate this with a little experiment.

First, focus your eyes on the centre of the coloured circle below for about 30 seconds. Then focus your eyes on the centre of the blank white square to the right. Hopefully, you saw a 'phantom' - a differently coloured circle that slowly faded with time.



What happens here is that as you stare at the first circle, a different one of your cone cell types is strongly excited in the part of your retina looking at each coloured segment of the circle - the blue cones are excited by the blue segment, the green cones by the green segment, and the red cones by the red segment. Consequently, that cone type gets 'tired out' by the constant stimulation, and is briefly unable to respond to light as a result (we call this adaptation).

This means that when you move your eyes to look at the blank white square, within the area of your retina that viewed each original coloured segment there are two cone types that have not been

- **Light detection by the human eye is different to that of many animals**
- **Understanding how animals see colour can help create more efficient coloured traps for disease vectors**
- **Tsetse flies can transmit the parasitic micro-organisms that cause sleeping sickness in humans**
- **Research showed phthalogen blue-dyed cotton is an attractive fabric, but the effect could not be recreated with more useful polyester fabrics**
- **We can use the fly's eye view of attractive fabrics to make more effective and robust colour traps.**

excited and are raring to go, and one that is still tired out and cannot be excited. As a result, you perceive a colour that is not really there because of the difference in excitation across those three cone types.

For example, viewing the blue segment tires out your blue cones in that part of your retina, so when you divert your attention to the white area, only the green and red cones are able to become excited. When only those two cone types are excited, our brains interpret that as yellow.

So, colour sensations clearly depend on the light detecting photoreceptors in our eyes, but what you might not realise is that the light detecting machinery in the human eye is different to that possessed by many other animals. If those animals have a different complement of photoreceptor types, they must also have different perceptions of colour.

For example, lots of primates have three cone types like we do, but most other mammals only have two because they only have a single type of photoreceptor sensitive to longer wavelengths of light - they do not have separate green and red cone types. So, despite the common saying, red rags really don't stand out strongly to a bull's eye view!

The eyes of insects differ further still from our own. For example, bees have three photoreceptor types, but these are sensitive to UV, blue, and green light; and the humble housefly has five main kinds of photoreceptor spanning UV, blue, and green regions of the spectrum. But why should we care about the colour vision of flies?

CONTINUED >



An online CPD quiz based on this feature is now available on the BPCA website. Each quiz is worth three CPD points - register to take part at bPCA.org.uk/affiliate

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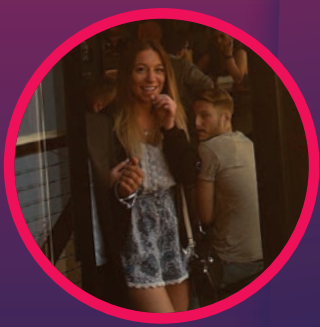
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FLY'S EYE VIEW

Sleeping sickness control

Well, the tsetse flies of sub-Saharan Africa are blood-feeding flies that can inflict a nasty bite. These bites also transmit the parasitic micro-organisms that cause sleeping sickness in humans, and a similar disease called nagana in cattle. Sleeping sickness is fatal if not properly treated, and because there are no vaccines or prophylaxes to prevent infection, controlling tsetse is an important part of controlling the disease.

For the species of tsetse that transmit the majority of sleeping sickness, colours are the main attractant used to lure them towards control devices. Tsetse control devices are constructed from coloured fabrics. These include traps and simple insecticide-impregnated targets. In each case, the coloured fabric attracts tsetse to the device, where they are either caught or dosed with insecticide when they land upon it.

Decades of entomological field research identified phthalogen blue-dyed cotton as an extremely attractive fabric to tsetse flies, and therefore the best one from which to make traps and targets. However, modern polyester fabrics are lighter, more robust in the field, and carry insecticide more effectively, so they have superseded cotton as the material of choice for tsetse control devices.

Unfortunately, phthalogen blue dye cannot be applied to polyester, so alternative blue dyes have to be used. But here's the catch: field trials comparing the attractiveness of phthalogen blue-dyed cotton and various blue polyesters

Image: Peter Rickwood, International Atomic Energy Agency



Farmers near Arbor Minch, in southern Ethiopia (July 2001) set up a trap for tsetse flies. The traps are impregnated with insecticide that kills the flies. After the population has been reduced, sterile males will be released into the wild.

have shown that the former attracts up to twice as many tsetse as the latter.

The key to understanding this problem is to realise that what appears blue to the human eye is irrelevant to the tsetse because it perceives colour using a completely different complement of photoreceptors. Luckily, fly photoreceptors have been so extensively studied that it is possible to calculate how they would respond to the spectrum of light reflected from a fabric sample - essentially, we can use mathematics to take the fly's eye view of the fabrics used to attract them. Applying these methods to extensive measurements of tsetse attraction to differently coloured fabrics from previous field studies has allowed us to model how each of a tsetse's five main types of photoreceptor likely contributes to attraction.

Essentially, we have created models that explain the visually guided behaviour of tsetse using the visual information that

is actually available to the fly's nervous system. This analysis also suggests important differences in the way that some blue polyesters and phthalogen blue cottons appear to tsetse. Building on this work, we're now going a step further. Because our models tell us which photoreceptor signals increase attraction, and which decrease it, we are now developing polyester fabrics that excite the fly photoreceptors even more effectively. In this way, we hope to create highly attractive polyester fabrics that can increase the attraction of tsetse to control devices and thus improve the effectiveness of tsetse control.

This work has real potential to improve the health and wellbeing of poor, rural communities in sub-Saharan Africa by providing more efficient devices for the control of tsetse flies and prevention of sleeping sickness. Sometimes intriguing scientific questions can lead to unexpected but important applications!

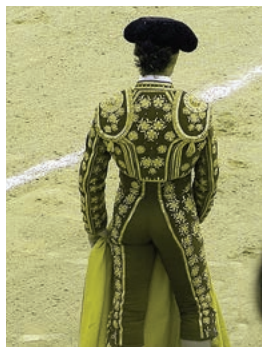
About Roger

Roger Santer is a lecturer in zoology at Aberystwyth University, joining in 2010. Following his PhD in invertebrate neuroethology at Newcastle University, he held research positions at Newcastle University (2003-2006), and the University of Nebraska-Lincoln (2006-2008), and a lectureship in biology at the University of Limerick (2008-2010). Roger's interest is in animal behaviour and the neural mechanisms that underlie it. His current research is on visually-guided behaviour, mainly conducted in insects and arachnids using a range of electrophysiological, behavioural, and computational techniques.

This article was originally published in Aberystwyth University magazine, PROM



Image: José Luis Sánchez Mesa



Red rags to bulls?

Like many mammals, bulls don't have separate green and red photoreceptors. So although red stands out to the human eye (left), it won't to the bull (right). The right image has been modified by averaging the green and red colours, simulating the lack of separate green and red cones. If you can barely see a difference then you have a degree of colour blindness!

PESTWATCH: Cat and dog fleas

In this in-depth PestWatch analysis, BPCA Field Officer, Natalie Bungay, investigates cat and dog fleas, paying particular attention to the sources of infestations even when a host appears absent.

Without a doubt, the most common fleas we Brits will encounter is the cat flea *Ctenocephalides felis* and then more occasionally, the dog flea *Ctenocephalides canis*.

Fleas are probably a pest that most people at some point have experienced – be it at a place of work or in their home. Most issues will be related to domestic pets picking up the problem from an outside source. Whether it be a curious dog who comes across a healthy fox den, or a sociable cat taking home its friend's bloodsuckers, our beloved pets are usually the source of these pests.

However, sometimes, it may seem like a report of flea activity is unwarranted and confusing – especially in a medical records office within a hospital, or reception area of a commercial building. What is the source of the infestation then? You'll need to conduct an investigation and set up some monitoring to establish what exactly is causing this 'outbreak'. But before we tackle monitoring and treatment, let's start with a bit of background...

A SHORT HISTORY OF FLEAS AND THEIR ECOLOGICAL SIGNIFICANCE

Over 2,500 species of fleas have been described worldwide and, fortunately, we are familiar with a tiny group.

Contrary to popular belief, it was not one of the previously mentioned fleas that were responsible for the spread of the

infamous plague. It was, in fact, the oriental rat flea, *Xenopsylla cheopis*, which is a vector of *Yersinia pestis*, the bacterium which causes bubonic plague.

The disease was then spread by rodents such as the black rat, which were bitten by fleas that then infected humans. Major outbreaks included the Plague of Justinian and the Black Death, both of which killed a sizeable portion of the world's population.

It's believed fleas were once free-living, flying insects. Then they started living within the dens of small mammals, feeding on the debris there. Eventually, they started feeding directly from the animal. Through the slow process of natural selection, fleas lost their wings.

If you think about the benefits of fleas regarding the food chain, environment and so on, it could be argued that fleas (like all species) are merely filling an available ecological niche. All organisms are part of the food chain; whether they are consumed by animals, microorganisms or fungi, fleas help keep nutrients flowing through the system of life.

You could (controversially) argue that bloodsucking parasites help to re-balance populations that are out of control by being vectors for disease. That's all well and good until it's your species that's under the threat of disease and death!

Significance of flea lifecycles

Unlike the names suggest, *C Felis* and *C Canis* will not dedicate to one host species, they can feed from various animals. Although they will be able to feed and sustain themselves for a period of time on a different host (for example, human blood), they will not have the ability to produce viable eggs.

This means that if you're certain that no host animal is present, then the flea activity will stop all by itself... eventually!

To understand why the problem seems to persist without a host animal, we have to look at the lifecycle of a flea.

The flea goes through a complete metamorphosis: egg, larval, pupal and adult.

Larval stage

The larva of the cat flea has a grub-like appearance and is about 2mm in length.

Larvae actively avoid light and hide in the appropriate areas around them. The larvae require adequate ambient moisture and warmth and will die at temperatures near freezing.

They will feed on a variety of organic substances, but the most important dietary item for them is the crumbs of dried blood that continually fall like snow out of the haircoat of the host after it has been excreted by the adult fleas as faecal material. Thus, the adult flea population continually feeds the larval population in the animal's environment.

Pupal stage

The larvae then begin spinning a cocoon and entering the pupal stage.

The cocoon is adhesive and quickly acquires a coat of camouflage from surrounding dirt and dust. Pupation depends heavily on temperature and moisture and takes a week or more to complete.

A fully pupated adult can remain inside of its cocoon in a state of semi-dormancy (called the 'pupal window') awaiting signs of the presence of a host – something I'm sure we're all very familiar with. It is this stage that causes the extended periods of flea activity with no host present. There could be hundreds, even thousands of formed adults waiting in pupal-silence for their next victim to approach!

It may take more than one 'disturbance' to encourage all of the adults out of the relative safety of their cocoon so keep this in mind when you're scratching your head over extended flea issues.

Adult stage

The new flea begins feeding on host blood within minutes and will then begin the cycle again, feeding, reproducing and dying!

Image: DenniSchmapp



Egg stage

An adult female flea that has had a full blood meal will begin to produce 20 to 30 tiny (0.5mm) non-adhesive white ovoid eggs per day.

She'll lay them at a rate of about one per hour until she dies. Under ideal conditions, it might be possible for her to produce 2,000 and 8,000 eggs in her lifetime. However, most only manage to produce around 100 before being consumed by their host while grooming!

The eggs are dispersed freely into the environment. Within two to seven weeks a certain proportion will then hatch into larvae.

Image: Wellcome Images



Delusional parasitosis (DP)

DP is a disorder in which individuals incorrectly believe they are infested with parasites, insects or bugs when, in reality, no such infestation is present.

Individuals with delusional parasitosis usually report tactile

hallucinations known as formication, a sensation resembling insects crawling on or under the skin. DP is a mental disorder characterised by a fixed, false belief that a skin infestation exists, which is in contrast to cases of actual parasitosis, such as scabies.

The aforementioned monitoring procedure can help to show sufferers of this condition that their issue does not lie with fleas, and that their next step should be to see their GP. We must not be tempted to use pesticides to alleviate sufferers' concerns. Again - it's the law!



FLEA FACTS

Fleas are related to Diptera (true flies) and were once free-living, flying insects

Neither cat or dog fleas were responsible for outbreaks of plague

Cat and dog fleas can feed off different hosts, but if they do, they won't be able to produce viable eggs

One flea could potentially produce 8,000 eggs in her lifetime

Fully formed fleas can remain in their cocoon waiting for signs of a host

Formication is the sensation resembling insects crawling on or under the skin



Treatments and monitoring

First, we need to establish if there is an actual infestation using monitoring methods. CoSHH does not allow us to use insecticides as a precautionary method, and rightly so; we need to confirm the presence of fleas.

Sometimes it may be evident that fleas are present by visual sightings. In the absence of this, we must use a light and heat monitoring trap, which are widely available from your suppliers. Place various monitors in appropriate locations around the property and wait to see what is caught. If a customer is happy to do so, you can rely on them contacting you in the event of any capture.

If no fleas are detected, then no pesticide treatments can go ahead. It's the law.

LOOK OUTSIDE THE BOX

Most of us will have experienced the odd tricky confirmed flea problem that seems to go on and on with seemingly unsuccessful treatments.

The important thing to do is ask lots of questions; How long has the issue gone on for? Who else has been in the property? Has it been vacant awhile? Are there any possibilities that a wild animal is entering the space?

This last question may seem far-fetched but I have actually experienced something of this nature. I once worked within an

NHS facility, and their medical records department constantly suffered from flea problems and, trust me, there were fleas there - a lot of fleas! Each time a treatment with insecticide was carried out, the fleas would die, and we saw evidence of this. However a week or two later, more fleas would appear. This was frustrating to say the least.

After about three months, during a night inspection for other pests, I noticed a window open in one of the side rooms within medical records. The next day I spoke to the manager, and this is where the resolution to the flea issue was discovered! The manager said, "Oh yes, we leave that window open - actually, most mornings we do find fox faeces on the floor of medical records which we just clear up."

So, in the end, the solution to the flea problem was closing the window. After this not a single flea problem was reported again.

Always ask the questions. It can help you build a picture of what's going on.

WANT TO KNOW MORE ABOUT A PARTICULAR PEST?

Email us with your PestWatch suggestions:

 hello@bpca.org.uk

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

Image: Frank Prior

MICRO PEST MACRO PHOTOGRAPHY

bringing the tiny into focus

Macro photography is the process of getting extremely close to a subject (which is usually very small in size, such as insects and spiders), to produce a photograph where the size of the subject is greater than life size. Frank Prior, a Technical Officer for BPCA member company, Precision Pest Management Solutions, has agreed to share his hobby (and second income) with PPC readers.

From experience, the macro photography process can be done in several ways, each with their own unique advantages and disadvantages. For example, a stacking process can be used of still or dead subjects to gain a very wide depth of field with a lens wide open, making for a very sharp and detailed end product.

Or, on the other side of macro photography, we can also make use of dedicated macro lenses and an onboard flash to capture small subjects in action utilising a fast shutter speed and smaller aperture to get as much of the subject in focus as possible. Each method is extremely effective, and also a very useful tool to study insect anatomy to determine the species, examine behaviour and, of course, showcase unbelievable diversity.

STARTING OUT

In 2012 I managed to save up enough money for a Canon 550D DSLR and after months of playing with landscapes and portraits, a photograph on the internet caught my eye.

It was a 2:1 perspective of the jumping spider *Phidippus audax*, a spider common in North America. The photo led me to the discovery of a Flickr page by 'Thomas Shahan' and, after scrolling through his work, I knew macro photography was something I wanted to not only attempt, but master. I began to photograph insects around the garden with a standard 50mm prime lens reversed and stopped down to allow for a greater depth of field; the results were okay for a beginner.

FRANK'S SETUP

Over six months I developed a rig with a friend that would allow for movements with 0.1mm (100µm) increments. This lets me mount a pinned subject and move it away or toward the camera with precision. I moved from camera lenses to microscope objectives (such as a cheap Nikon M PLAN 5x from eBay), which gave me more magnification, sharper images, and greater control over the end product.

The rig allowed me to move in steps

small enough to get an entire subject in focus over the course of 50-200 images. This was necessary as microscope objective lenses have a fixed, wide open aperture. This means that only a tiny portion of a subject is in focus and, in order to get the entire subject in focus, several photos are 'stacked' using specialised software.

Over the next six years I developed more specialised rigs to accommodate higher magnifications (up to 50x!), and eventually I invested in a Canon 750D which is a perfect body due to having an APS-C sensor, as in the 550D. My current setup is capable of 1µm increments, and I have full control over magnification, focus, depth of field, and lighting.

Lighting in macro photography is one of the most important factors (after the lens you choose). I prefer continuous LED lighting and use cheap IKEA reading lamps with a white filter in place. The light is diffused by white paper, and an exposure of three seconds is given to allow enough light to hit the sensor. However, alterations are made based on F-stop and magnification used.

After a subject is cleaned, dried and pinned (if the subject is dead), the process of deciding magnification and stacking distance is chosen. Once enough images are taken at different focus points along the subject, the photos are stacked and processed in Photoshop to enhance tone, colour, and sharpness. I have an artistic background so the work I produce is displayed in a manner that enhances the perspective in which we look at micro-life. I find this gains more attention when compared to bog-standard library photos of bugs we see a lot of the time.

CLOSE UP AND PERSONAL

Being a nature enthusiast, I don't usually look ahead of me when walking but instead I focus on what's beneath my feet, on top of ledges, and even on the ceiling. For the past nine months working at Precision Pest Management Solutions, I find my habit of looking for new bugs to capture



has got progressively worse. Before starting in the industry, I knew a job like this would be ideal due to my passion for getting a closer, more detailed view of what's going on within an environment. Macro photography has allowed me to capture images of a number of pests such as the Australian spider beetle, red-legged ham beetle, and even a cat flea.

These images seem to have gained great interest within the industry already, with Killgerm using my photos for display and anatomical purposes, and the managing director of Precision formulating plans for a possible handbook of 'micro-pests'. Macro photography, in my opinion, is a fantastic tool that can and should be used in pest management to portray many of the smaller pests in a new light. Quite often, what people can't, or struggle to see is usually ignored, with SPIs being the smallest pest we deal with, and very commonly in large numbers (due to their rapid rate of breeding). Therefore, I've found that by showing co-workers and clients highly magnified photographs of the pests we deal with, the risks that these insects can bring are understood and appreciated a great deal more than by words alone.

What began as a hobby to obtain a closer, more detailed view into such a diverse world has become much more. Macro photography has allowed me to meet nature enthusiasts such as Bill Oddie, gain recognition in magazines like National Geographic Magazine and Aberystwyth PROM magazine, and also earn a second income by selling images to be used in magazines, online portfolios, and for display purposes in scientific studies.

The process of macro photography can be as simple or complex as the photographer wants to make it. However, time, patience, and a keen eye for detail are all necessary in order to capture photos that spark a reaction with an audience, which is exactly what I want from my work.

Check out Frank's Flickr page [flickr.com/people/sequentialmacro](https://www.flickr.com/people/sequentialmacro)

Image: Frank Prior

“ Macro photography has allowed me to capture images of a number of pests such as the Australian spider beetle, red-legged ham beetle, and even a cat flea. ”

**SMALL
WONDER**

**LIKE THIS ISSUE'S
COVER? IT'S BY
FRANK TOO!**



Say cheese? Promotional photography tips for pest controllers

Photography leaves a lasting impression on current and potential clients, be it for a snappy piece of print, a team pic for your website, or just something for social media. Ken Davidson, the consultant designer of PPC magazine, offers advice on getting the best from your photographs.

As I sit down to put together another PPC mag, I have a folder stuffed with photographs submitted by members. Sadly, it's often the case that the pictures submitted do not do you justice. And, if this is the calibre of the photography I get sent, I worry that your own print materials and web pages may be making a somewhat poor first impression. This is a guide on how to not be another victim of poor photography.

The first point of contact between your company and a client is often your website or brochure. You're likely to have photographs of you and your team at work or standing by your van. But often the work you showcase is not based on the merits of the job, but instead on whether any half-decent pics exist or not!

You only get one chance at a first impression. What could be better than having ravishing, pin-sharp pictures of your work, when your competition may not?

PROFESSIONAL HIRE OR AMATEUR CHANCER?

As smartphones and digital cameras get better, for lower cost, it is easier for everyone to get apparently acceptable shots. But using an amateur to take important pics can be a false economy. The impact from a professionally-taken image is far stronger than that of a snap taken in haste. Professional photography will sell your product or your company, while amateur photography may stall the sale.

However, in certain circumstances it may not be appropriate to employ a photographer: project value, client site restrictions, or simple lack of time may all conspire against you. In these cases, there are some things the keen amateur can do to improve picture quality.



PHOTOGRAPHERS ARE PERCEIVED TO BE EXPENSIVE CREATURES...

...but this needn't be the case if you negotiate a shoot based on a short session, and get someone local to the project. Moreover, there exists a new breed of photographer who does not adhere to the outmoded model of copyright control and prohibitive print reproduction costs, especially for pictures that have little creative use beyond

marketing the client's project.

A professional photographer is not just someone with the right kit. They understand how to capture images that are right for a client's business and convey the message required. Their experience enables them to obtain successful results where many would fail.

DIY PEST-PIC TIPS

- 1 Steer away from auto settings and get to know your camera. Even smartphones tend to have pro settings now. Experiment to see what works best. Download an app that allows fine control of parameters - I'm not talking about filters and effects but settings that are in place before the shot.
- 2 Even if your camera has image stabilisation, in low light you will get blurring - invest in a cheap tripod or find a surface to brace your camera.
- 3 Do not use digital zoom! Move closer or your image will suffer.
- 4 Portrait? Don't get so close that your subject's nose will look too large due to lens distortion.
- 5 Think about the picture. Take your time to frame the shot to highlight the subject you want.
- 6 We're keeping this simple, so try to keep a light source behind you or to the side. Electric light isn't usually strong enough to worry us but daylight can be problematical. If inside, draw the blinds, or put your back to the window and use that tripod. If outside stand with your back to the sun. Harsh light is your enemy!
- 7 If you can't avoid getting the window in the shot, then take a range of shots with different exposure times. One should be a suitable compromise between under and over-exposed.
- 8 Suppress the camera flash to avoid nasty reflections.
- 9 Try to keep all vertical lines parallel. If your subject is too high, and therefore impossible to be at eye level with, then try angling the shot for drama (Google 'Dutch angle').
- 10 Criticise the picture: is there anything that shouldn't be there? Dirty marks on your van? Litter in the background? General untidiness?
- 11 While your audience wants to see you at work, I suggest not using photographs with any carcasses in the shot. Choose a picture of getting equipment out of your van or doing a site survey.
- 12 The camera is digital - take lots of pictures! It won't cost you a penny more, and you'll not kick yourself for the shot you missed.
- 13 High megapixel count does not equal quality! For most applications short of very big prints, a 5-megapixel camera is sufficient, if all other camera features are of a high quality; low noise, good colour balance and practised framing are all more important than image resolution.
- 14 Use rudimentary image editing software to crop, align and colour-correct your pictures - but only if this does not degrade the final image. Be wary of this, a fancy-pants filtered shot is of little use to the graphic designer trying to print your image, trust him or her to treat your image according to its use.
- 15 Finally, if doubt exists, use a professional!

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: BREAK BACK TRAPS

How often should these traps be checked?

NATALIE REPLIES: As no current legislation governs the use of break back traps, this question does not have a straightforward answer! The answer will depend upon site environmental conditions, the level of activity, the available access and site staff.

Let's look at a common scenario: an inner-city mid-sized restaurant serving evening meals has an established house mouse infestation within various locations around the kitchen, stores and miscellaneous area. Break back traps have been found to be most effective. How often should you check the traps? Daily might be the initial approach, because if the activity is high then catches may well be high. Visiting daily will allow you to remove dead mice and reset the trap ready for its next visitor, equating to a quick and effective reduction in mice.

You could also ask your client if they are happy to look at the traps. There is no reason why they cannot report back to you when catches are found. See the BPCA new CoBP "The Use of Break Back Traps/Snap Traps" at bpca.org.uk/codes

SUBJECT: LAW

Do food businesses need pest control by law?

DEE REPLIES: It's not a legal requirement to have pest control but you are required to manage pests. Section 21 of the Food Safety Act 1990 provides the defence of 'due diligence' in the event of prosecutions. For example, if an EHO finds significant pest issues to the detriment of the hygiene and safety of a food site then prosecutions may take place. The person charged can use due diligence as a defence if, for example, they used a commercial company to protect their site. Also, regulations talk about proofing against pests, keeping refuse areas pest free, applying insect screens and deterrents, and regular surveys by competent individuals. For a food business to do in-house monitoring etc, it must prove competence: something a court will make a judgment on if it were to come to that. It's your job to help a client understand that using a professional not only protects their site, but also themselves if courts are used. When talking to end-users, we always state that BPCA member companies meet or exceed all pest management legal and due diligence requirements, and comply with the most current legislation. See bpca.org.uk/beprotected

SUBJECT: PROACTIVE PEST ADVICE

Which pest species can I proactively advise on?

NATALIE REPLIES: With the inevitable colder temperatures, some pests which are not already hibernating or overwintering will seek to find a better alternative to the harsh reality of UK winters!

One common home invader is the grey squirrel which enters homes via faults in the soffits and fascias of buildings, allowing the squirrel to access. Even without clear holes, if there is enough space for the squirrel to get some leverage on with their strong rodent incisors, they'll access a roof space very quickly.

Make sure you let your customers know if there is a risk of this occurring by pointing

out damage to these areas, overhanging branches (allowing squirrels to jump from onto the roof), shrubs growing up the side of buildings and any other area that may allow easy access.

Remember, if you have to treat a problem with squirrels, poisons are no longer available (Warfarin) for either inside or outside use. Live capture traps or kill traps will help you remove those unwanted squirrels. Remember to see the BPCA guidance and codes for using such traps. We did an in-depth PestWatch about squirrels a couple of issues ago. Have a look at bpca.org.uk/ppc91 if you need a squirrel refresher.



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

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SPEED VIEW

- **No law covers how often you should check break back traps, so you need to make a decision based on the site**
- **Food businesses are legally required to have pest control - but that doesn't mean they have to use you**
- **Be proactive and advise your customers about squirrels this winter**

BACK TO BASICS

Better than basics: become a bed bug specialist



Chris Cagienard, our go-to 'Back to Basics' feature writer, returns to give us an insight into adding bed bug services to your portfolio. But, as Chris describes, offering bed bug services isn't as simple as it used to be.

In our working as pest management professionals there are a number of pests we deal with day in and day out, such as rats, mice, black ants, wasps, hide beetles and larder beetles. We can quickly become proficient in mastering the biology and behaviour of these pests as we experience them so often that it quickly becomes ingrained in us as to how they behave, what methods of control are the most effective and what we can do to increase the success of any treatment or prevention strategy.

On the other hand, there are pests such as bed bugs, cockroaches and pharaoh's ants for example that we are likely to experience far less frequently. For many Level 2 qualified technicians, depending on the location that you operate within and your specific role within the company that you work for, it is possible that your exposure to dealing with these insect pests may be limited.

The management of these pests can often be considered a 'specialist' service that requires a technician to learn new skills to be able to master. Learning these skills can help you to develop and advance your skills as a technician and may even lead to additional career opportunities for you within your current company or elsewhere.

INITIATIVE IS NOT SOMETHING YOU CAN TEACH

Let's look at the specialist service of effective bed bug eradication. There are already many specialist service providers that have carved out the niche in offering bed bug specific services as it is a fast-growing area of concern with reported infestations increasing, sometimes of epidemic proportions. In my opinion, increasing your knowledge and understanding in the effective control of bed bugs is an extremely

valuable addition to your skillset, and I will share with you why I think this.

When I was first trained to carry out bed bug treatments the method was focused on 'do it this way because I told you so'. This really did not help me to understand what I was doing and why, what effect it would have and what the underlying principles were. This was not very helpful and didn't give me the confidence of having a true understanding of the treatment process.

It was in taking my own initiative to learn about bed bugs that my skills developed. My understanding of the principles of the biology and behaviour of the pest developed and as a result the number of times I would get a call back for an unresolved bed bug infestation fell to almost none. So by using bed bugs as an example, developing a specialist service will allow you to extend your initiative, and with it your knowledge and supporting skills.

THE HISTORY OF BED BUGS IN THE UK

Bed bugs in the UK were a common household pest up until the mid to late 1970s into the early 80s with almost a third of homes in some urban environments being infested. In extreme cases in low income areas, almost all residences were infested.

From the 1950s onwards, the introduction of harsh chemical control with products such as DDT reduced the instance of bed bug infestation down to very low levels giving the impression that the days of the bed bug were gone. Treatments with chemicals such as DDT have since been outlawed as exposure to the chemical was found to lead to increased risk of cancer, increased infertility in men and a higher risk of miscarriage in women. In addition, research suggested expectant mothers with increased levels of DDT (due to exposure) were more likely to have a child who developed Autism. For the

younger pest management professionals this is a great example that the modern standards and the adherence to COSHH regulations are vital.

INTENSIVE NATIONWIDE TREATMENTS STOPPED, AND ALL WAS WELL... FOR A WHILE

When I started in the pest industry in 1998 in Scotland, bed bug infestations were rare, and it was not uncommon to only be involved in one or two treatments in an entire year. Fast forward to 2018 and we regularly get five or more enquiries for bed bug treatments every day in Glasgow. And we are just one small company.

Reports of infestations are increasing exponentially due to the transmission and spread of infestations via increased travel, and due to the lack of understanding about the pest by the younger generation. I'm sure I am not alone in having experienced many young adults saying, "I thought bed bugs were a fairy tale".

As an industry we are swinging in to action to tackle this epidemic rise in bed bug infestations, but we must be smarter and more innovative than our predecessors as we are dealing with increased capacity for infestations to be spread, a lack of awareness among the population and an absolute necessity to ensure that your treatment methods are safe. We need to become educators and experts in the specialist treatment of bed bugs if we are going to turn the tide.

We must understand every part of the biology and behaviour of the pest. We must understand what methods are available and what makes for an effective treatment to make sure that we succeed and that the public can see clearly that they need pest management professionals to get the job done.



An online CPD quiz based on this feature is now available on the BPCA website. Each quiz is worth three CPD points – register to take part at bpca.org.uk/affiliate



Image: Graham Snodgrass, Entomology Division, USA/PHC

“ Reports of infestations are increasing exponentially due to the transmission and spread of infestations via increased travel, and due to the lack of understanding about the pest by the younger generation. ”

LEARN THE BIOLOGY OF THE BED BUG

I am not going to attempt to cover it all in this article, but, if you want to become an expert in the control of bed bugs the only place to start is on a full immersion in the biology of the pest. You will need to know:

- What aspects of the human activity attract the insect?
- What times is the pest active during the night?
- What are the effects of hot and cold temperatures?
- What is the reproductive process [and how it affects behaviour]?
- What is the growth cycle?
- What is the method of feeding?
- How often do they feed?
- How are the egg cases impacted by insecticides?
- What chemicals can excite the adult insect?

This is not an exhaustive list but simply a few of the attributes of the bed bug that should be considered. Take the time to learn about the biology and it will help you in a number of ways.

Firstly, it will help you become far more authoritative and confident when speaking to clients about bed bugs. On numerous occasions just being more knowledgeable about a pest has closed a sale even when we may have been the more expensive option.

Secondly it will help you to understand why a bed bug behaves the way that it does. This will help you with every aspect of the treatment from the survey process to the accompanying advice that you give to the customer during the treatment to ensure success.

CONCENTRATING ON BED BUG BEHAVIOUR

Once you have a grounding in the biology of bed bugs the behavioural traits will make more sense. You will see that the behaviour has a predictability to it. Where we can predict the behaviour of a pest, we can use this against it as part of the method of management or prevention.

CONTINUED >

Better than basics: become a bed bug specialist

Significantly, understanding the behaviour of the pest helps us to educate clients and what they need to do in order for the treatment to be a success.

If you give unclear instructions, it's unlikely that clients will take your advice, limiting the effectiveness of treatment. A good understanding of the behaviour of bed bugs will also help you assess how effective your treatment strategy has been.

THE SURVEY

The foundation of any good pest management treatment is always a good survey. This is no different with bed bugs. It's vital to make sure that you fully assess the scope of any infestation and confirm that it is indeed bed bugs and not another biting insect such as fleas.

Is the infestation in a house or a flat, a hotel or a guesthouse? This should help you decide how to conduct your survey. In hotels and guest houses it is best practice to inspect the rooms all around any affected room. Active monitors can establish the presence of light activity, without needing the infestation to develop before it becomes detectable visually.

The best survey technique I have experienced remains the use of a trained bed bug detection dog and handler. I was sceptical at first, but the speed and accuracy of this was so decisively impressive when I saw it in action – highly recommended! Other techniques include a thoroughly detailed inspection or the use of active monitors, but a good survey will leave you with little question over the most appropriate treatment.

HEAT TREATMENT VS TRADITIONAL TREATMENTS

When surveying and quoting for bed bug jobs it can often seem that there is a division forming between the companies who advocate heat treatments and others who champion traditional treatments.

The debate has become quite polarised with each side claiming that their approach works best and the other approach is not effective. My skillset is focused towards the 'traditional treatment' approach of a time-consuming and thorough inspection coupled with targeted use of residual insecticides and non-toxic powders such as diatomaceous earth. I normally recommend four treatment



Tips from Chris for non-heat bed bug treatment

- 1 I recommend a minimum of four visits over four weeks.
- 2 When surveying hotels remember to check all neighbouring rooms from every infested room.
- 3 Ensure that the client removes no furniture from the room until after the treatment.
- 4 Convince the client about the benefits for the treatment of continuing to sleep in the bed.
- 5 For items that are not treatable with insecticides, such as books, create a quarantine zone surrounded by insecticide on the floor and let their behaviour draw them out across the insecticide.

visits over a four-week period. My faith in the strategy is because this is how I was trained, and I've experienced a very high success rate using this method. But it is not the only method that gets results.

I think the debate should not be about whether heat treatments are more effective than traditional treatment strategies. Instead it should be about what does a good heat treatment strategy look like and what does a good traditional treatment strategy look like. I believe strongly that both can work very well in almost any situation, to tackle almost any infestation.

However, it is clear that there are poorly performed versions of each type being carried out and passed off as effective strategy. This gives us and our strategies a bad name.

Although I understand the principles, I am not an expert on heat treatments, and wouldn't profess to know what actions lead to a successful treatment. But it seems quite clear at a glance that not all heat treatments are created equal. The differences can range from the heat source capacity, humidity, room temperatures, and I am sure there are a multitude of other variables. If you are interested in heat, there's a good PestAware article on the BPCA website – "Everything you need to know about heat treatments for bed bugs".

Currently I would not trust a partial heat treatment using a tent or pod as an effective method as I have not yet seen evidence that this is more effective than my experience of tried and tested traditional methods. However, I have seen real advantages to large-scale treatments where the entire room or building is heated up to a maintained temperature for an adequate period of time. Remember, if you don't have this service inhouse then BPCA's CSN is a great place to bring these specialist skills from trusted fellow members (bpc.org.uk/find and select CSN)

It is also not uncommon for us to see poor versions of a traditional treatment

strategy. Every day we talk to customers who have been promised something like one treatment for £80 will get rid of their infestation. This approach will never yield a successful outcome and undermines the professionalism of the industry.

LET'S CUT TO IT: DIY BED BUG TREATMENTS DO NOT WORK

I have never heard of a DIY treatment against bed bugs being successful. It seems fairly obvious to me that this is because the person carrying out the treatment is not trained adequately in the biology and behaviour of the pest or effective treatment strategies.

I would not wish a bed bug infestation on my worst enemy and do not understand why anyone would try and tackle it themselves instead of calling in the professionals.

WE NEED MORE BED BUG SPECIALISTS

Bed bugs are on the increase and at the minute the industry is straining to keep ahead of the problem. Your industry needs you to step up and learn more about bed bugs and help to fight the rise of this pest across the UK. Take the time to read some of the great materials online, go back and study your BPM manual, or even sign up for a specialist bed bug course. To win the battle against bed bugs we need to make sure we are prepared.

We need more bed bug specialists in our industry to help deliver this essential service and help to innovate new methods of control and prevention that are reliable, robust and safe. Take the first step today...

CHOOSE TO MAKE THE MOST OF IT

Would you like your guest article to appear in PPC magazine or on our website? Tell us your idea for a story.

 hello@bpc.org.uk



Can you permanent bait with rodenticides?



There's been a lot of talk about whether pest controllers can legally permanently bait, and in what situations. There's a lot of confusing information about how this works in practice, so we've put together a recap to help technicians stay the right side of the law and protect non-target species.

As we reported in September, in short, yes, you can permanent bait with rodenticides. But not in the way we did pre-stewardship.

Permanent baiting, or long-term baiting, with rodenticides is something that needs to be done with more advanced assessment and monitoring than we are used to.

If you've been in the industry for more than just a few years, it may be the case that your training consisted of creating a 'ring of fire' around a building perimeter or foundations. This was to not only monitor a rodent situation, but also deal with the odd investigative rodent. This 'just in case' approach is in the past.

The 'ring of fire' is absolutely not allowed under CRRU Codes of Best Practice, which is law by way of the product label (authorised by the HSE), unless there are particular risks associated with the rodents! We will explain this a little more shortly.

In addition, 2018 saw new label phrases about rodenticide applications issued by the European Commission and adopted on rodenticide labels by HSE and product manufacturers. These are relevant to the practices of permanent baiting and to situations where baiting is longer than 35 days (ie long-term).

WHAT PRODUCTS?

Only products containing bromadiolone and difenacoum are authorised for use in permanent baiting, although not all bromadiolone and difenacoum products are authorised for this use.

Products containing brodifacoum, difethialone and flocoumafen are never authorised for permanent baiting.

It's easy to check which products are authorised. Each product label will confirm if permanent baiting is allowed. The following appears on products that are authorised:

"Permanent baiting is strictly limited to sites with a high potential for reinvasion when other methods of control have proven insufficient.

The permanent baiting strategy shall be periodically reviewed in the context of integrated pest management (IPM) and the assessment of the risk for re-infestation.

Sites under a permanent baiting regime should be inspected regularly in accordance with product label directions. The period between visits should be determined by the technician in charge but will not be longer than every four weeks when permanent baiting is conducted outdoors.

For permanent baiting follow any additional instructions provided by the CRRU Guidance on Permanent Baiting."

CHOOSING TO BAIT PERMANENTLY

There is a place for permanent baiting, particularly indoors, but only after:

- All other alternatives have been considered or exhausted
- You've done an environmental risk assessment and plan to review it regularly – template from bpc.org/d/crru-environmental-risk-assessment
- You've examined risks to non-targets and decided that they are justified by a continuing threat to human or animal health and hygiene
- You've documented your decision to permanently bait.

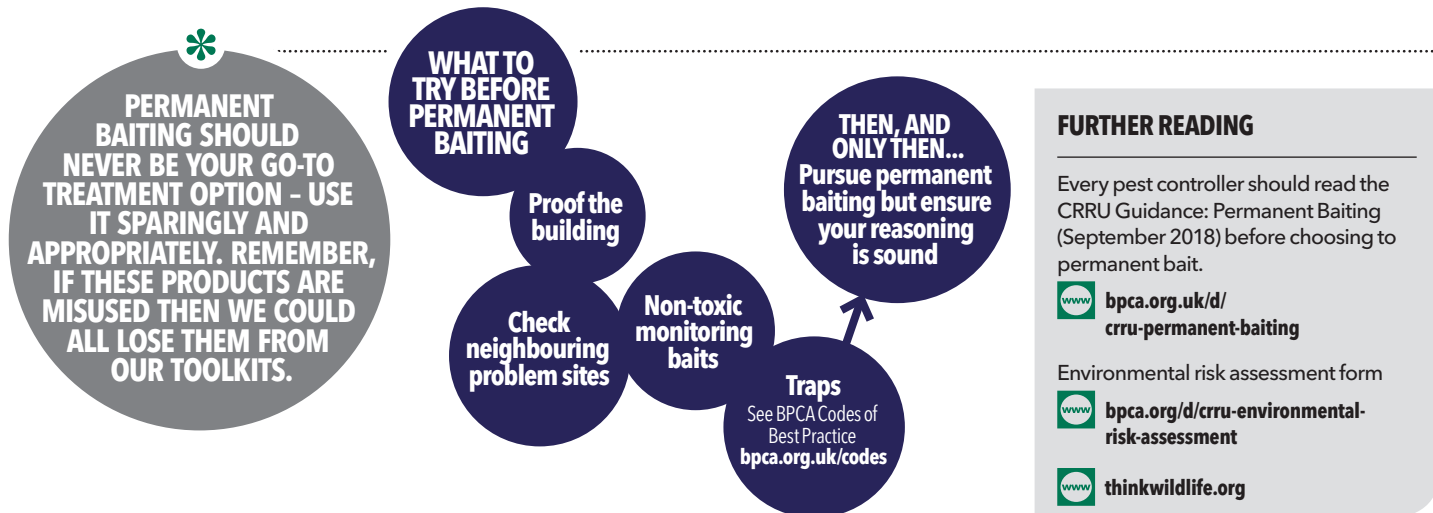
Overall, you need to make sure you meet the label requirements of the products you use and justify your reasoning in a written report.

Always...

- Keep the baited areas to a minimum
- Document your decisions
- Remove rodenticide immediately if there's evidence of wild small mammals, such as field mice and voles
- Remove rodenticide that shows a series of consecutive no-takes by pest rodents.

Never...

- Let an untrained person carry out a baiting programme.



MONEY DOWN THE DRAIN

The case for rat blockers

Rats love drains. They're a hidden highway to access property unseen and cause costly damage to property and health concern for the occupants. Daniel Bamford, Director of BPCA member company Metex, explains how a properly installed rat blocker can protect your clients from reinfestation and add another potential revenue stream for professional pest controllers.

...YOU COULD MAKE A DECENT ADD-ON SALE, AND MOST IMPORTANTLY KEEP YOUR CUSTOMER HAPPY!



Rats get homeowners understandably stressed and agitated, thereby keeping professional pest controllers on their toes. However, by not investigating drains and fitting a rat blocker, some pest controllers are missing a real opportunity. Not only could you be addressing a potential rat entry point, but you could make a decent add-on sale, and most importantly keep your customer happy!

Drain defects are common and can give rats convenient access to a property. Defects may be caused by ground movement associated with tree roots settlement, or old drains being built over, which regularly happens with properties that historically had an outside toilet which

was subsequently extended.

Rats accessing a property that is in otherwise good condition causes distress to the homeowner. They are often heard in the wall cavities and roof space but can also chew through flexible pan connectors behind a toilet. On rare occasions rats are even gaining entry by swimming through the u-bend of the toilet and, in parts of the Mediterranean, holiday home owners are known to leave the toilet seat down, secured by the weight of a brick when they vacate the property to prevent unwanted guests.

Quality rat blockers are a powerful and easy to install device that quickly eliminates drains as a point of rat entry.

Rat blockers are simple, robust devices that act as a one-way valve for rats. They are

inserted into a drain to prevent the movement of rats towards a property while allowing the drain to function as normal. With pest controllers discovering their benefits, the use of rat blockers is on the rapid increase in the UK.

LESSONS FROM DENMARK

Rat blockers are firmly established in Europe and particularly in Denmark, where they are routinely fitted, partly due to the strict restrictions on the use of rodenticides there.

Rat blockers are now actually required by legislation in Denmark and, as a result, are fitted in every school, government building, hospital and new property. With more than 100,000 rat blockers installed they are considered mainstream, acknowledging that prevention is better than cure.




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Typical rat damage to the wall of an inspection hatch

RESIDENTS IN NEW HOUSING DEVELOPMENT "HELL" FOLLOWING "RAT INFESTATION"

This was recently reported on a BBC Devon website and, after spending thousands of pounds in failed attempts to address the issue, residents contacted BPCA member, ISCA Pest Control. Dan Schofield quickly identified the drains as the source of the problem and fitted two six-inch Nordisk Rat Blockers. The residents are delighted as there has not been an issue since. Dan frequently comes across this sort of problem which he says is relatively typical for new build properties. ISCA estimates fitting twice as many rat blockers as this time last year, with 100% customer satisfaction.

Mikkel Dahl Hanson of Nordisk Innovation, a rat blocker manufacturer, states that up to 90% of town rats in Denmark come from underground pipes. With public complaints on the rise, there has been a mind shift in Denmark from the belief that rats can be eliminated completely to the understanding that to control a population they must be blocked from access to nesting sites.

At the beginning of October 2018, TRYG, the largest insurance company in Denmark, began to offer premium home insurance policy customers a free Nordisk Innovation rat blocker, including the cost of installation. This bold move by the insurance industry acknowledges that rat blockers give homeowners peace of mind and have the potential to save the insurer money in the long run.

Some of the best rat blockers on the market are 'VA Approved', having passed a series of rigorous tests at ETA-Danmark. The test

criteria include flow tests, as well as placing a rat in a sealed system for two weeks with a rat blocker separating them from a food source, a small fan is introduced to waft the food smells towards the rat, and in order to pass the test the rat must not be able to pass the device.

THE CASE FOR INSTALLING A RAT BLOCKER

Rats within drains will seek access to smaller diameter pipes due to the lower flow rate when looking for a dry place to nest, and a rat blocker is a practical measure to prevent this. They are non-toxic devices, immediately effective, and can usually be installed within minutes. With installation complete in a single visit, they are effective even if there is an unseen drain defect, and may negate the need for expensive drain repairs.

High-quality rat blockers can be installed from street level by way of an installation pole without the need

to consider the health and safety aspects of entering a confined space.

Fitting rat blockers results in more satisfied customers, and a good financial return for the pest controller. And, once installed, there is an opportunity for repeat visits as part of a maintenance contract.

Pest controllers who start using rat blockers for the first time, usually see the frequency of use increase quickly as they start offering them as an add-on sale where evidence of rat activity in the drains can be seen, or to give customers peace of mind.

MAINTENANCE

Quality rat blockers are robust stainless steel devices that will give years of trouble-free service. However, it is essential that they are checked and cleaned at least every 12 months.

Uncontrolled debris, food waste, sanitary items and wet wipes are often present in drains and can cause blockages elsewhere. Therefore

it is essential that an installed rat blocker is not blamed for drain issues caused by these other factors.

IN CONCLUSION

Rat blockers are widely available from pest product distributors. There are good quality units on the market, but it is important for pest controllers to make an informed purchase and to be able to stand behind the product fitted. They are an extremely useful tool, but it should be noted that they must be used as a part range of treatments to ensure rats already within a property are removed completely.

Daniel is the Technical Director of Metex and is happy to advise pest controllers on rat blockers.

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CODE OF BEST PRACTICE

Pest control foot personnel

A BPCA Code of Best Practice (COBP) is a set of written rules which explains how people working in our industry should behave in a particular situation. It encompasses relevant legislation but is not law in itself. However, were a member to act outside of the norms outlined in the COBP, they may be subject to disciplinary action and/or be in breach of legislation. BPCA Members must abide by Codes of Best Practice in their day-to-day work. Failure to do so may result in disciplinary action up to and including dismissal from the Association.

KEY CONTRIBUTORS

Natalie Bungay, BPCA
David Lodge, Beaver Pest Control
Martin Rose-King, Bounty Pest Control
Matthew Seabrook, III Shires Pest Control
Nigel White, Tactical Environmental Services

In larger cities and towns there has long been a need for pest control personnel to carry out their visits via foot and using public transport including overground trains, underground train networks, buses and taxis for a few reasons, largely to reduce their carbon footprint and for better ease of travel in highly populated areas.

As pest control work is diverse and demands a variety of different products and equipment, it is necessary for a foot operative to carry an appropriate bag for the transportation of these products and equipment. Safety for the personnel as well as the people around them is of utmost importance, and so this code aims to address this.



Related legislation

- Health and Safety at Work etc Act 1974
- COSHH Regulations 2002
- Management of Health and Safety at Work Regulations 1999
- Manual Handling Operations Regulations 1992
- Control of Pesticides Regulations (COPR) 1986 and the Control of Pesticides (Amendment) Regulations 1997
- EU Biocidal Products Regulations (BPR)
- Local public transport conditions of carriage (COC).

1 PREPARATION

It is important that you take the time to plan the implementation of a foot personnel to ensure that not only the proper risk assessing has been done but that the work is also allocated to a capable individual with the appropriate competence.

Risk assessing

A competent person must complete a risk-assessing process, making sure hazards are identified:

- Who could be harmed and how?
- What are the associated risks to health?
 - Decide on precautions and then record and implement them.

Hazards for consideration should include:

- Is the load being carried appropriate for the individual (weight and mass)?
- Has the foot personnel received regular manual handling awareness training?
- Is the bag/container appropriate to support the load in a manageable way?
- Consider the material of the bag vs the chemical contents – can the bag contain a liquid/chemical spillage?
- Lone working
- Security of the contents
- Do the personnel use public transport – if yes, check local conditions of carriage (COC)?

Conditions of carriage (COC) for the London Underground

For the London Underground, COC states that pest controllers may carry any items so long as they are in sealed containers and marked with the product label and have the MSDS with them. They must also be in a covered bag (not on display), no more than 2m long and nothing flammable. Make sure you check aerosols as these are usually flammable.

Appropriate equipment and guidance

Your risk assessing and planning process should highlight safety and comfort equipment (plus safety documentation that may be needed).

Examples of what your foot personnel might carry:

A Suitable footwear

B Bag

Carrying bag of an appropriate size, volume, and padding.

C Spillage kit

Ways to contain any liquid spillages/ clean it up, for example, a spill kit appropriate for the bag size. We advise that liquid pesticides should be in a sealed, impermeable bag to contain any leaks (bund).

D First aid equipment

Look at using a risk assessment and MSDS for guidance on what to carry.

E Cutting equipment

Sometimes pest operatives may require tools to cut cables, etc and so be sure to check local police advice on carrying sharps.

F PPE/RPE carrying capability

Keep RPE clean and separate from pesticides.

G Equipment and product register

Having a list of the items in personnel's bags can help keep track of important materials and products as well as serve as information to any potential emergency service personnel.

H Labels

Product labels must be attached to any decanted pesticides.

Other considerations

It is recommended a company policy is created to cover foot personnel specifically.

2 IMPLEMENTATION

Ensure initial training and consultation is given to foot personnel ensuring that all safety information is shared and discussed, equipment and tools are appropriate for the

An interview with a London foot operative

SAFETY FOR THE PERSONNEL AS WELL AS THE PEOPLE AROUND THEM IS OF UTMOST IMPORTANCE, AND SO THIS CODE AIMS TO ADDRESS THIS.

individual, and any questions or concerns are addressed. This should be recorded.

Ongoing and daily planning should consider precise daily workloads so that the carry bag contents can be planned for only the work at hand. Routes of travel, where possible, should also be planned.

If appropriate, a safe and secure storage location should be available nearby for any top up of products – this will help reduce carrying amounts.

Other considerations

- Only carry empty sprayers. You should make up pesticide preparations on site
- Carry the lightest possible load
- Keep the bag in sight at all times and do not leave unattended in public places
- Never carry a bag on one shoulder, this could cause long-term muscle injury.

3 MANAGEMENT AND MONITORING

Ensure regular consultations and meetings are arranged with foot personnel to ensure the continuation of safety measures and individual competence for the role. These should be recorded.

Manual handling awareness should be an integral part of the ongoing training for foot personnel.

Regular checks of carrying bags and its efficiency should be done. A checklist should be devised and an appropriate amount of recorded checks implemented (recommended every 1 month).

Important information and links:

Transport for London
content.tfl.gov.uk/tfl-conditions-of-carriage.pdf
 Other cities and towns will have their own COC so ensure these are checked.

Version 1: November 2018



We caught up with Nick King from Beaver Pest Control, to find out what it's really like to be a foot operative on the streets of London.

Tell us a bit about yourself and your background.

I've been working in pest management for 14 years now, all of which has been as a 'footman' and all around London. My patch ranges from Chinatown to Liverpool Street.

What's the biggest challenge for you as a foot operative?

Organisation! You've got to be organised so that you don't carry too much in your bag. You've got very limited space, unlike a van. Oh, and nothing tests you more than getting around when there's a tube strike!

What are the best and worst things about being a foot operative?

The best thing is definitely never having to think about parking or traffic.

Even though you have only to carry what is needed for your jobs that day, the physical requirements over long periods can be hard. Even more so on especially hot days. Comfortable clothing and good footwear is a must!

What typically do you have in your bag?

Only what I absolutely need for the day in an effort to keep the weight of the bag down. That's why you need a proper, well thought out plan for the day. I always have a few basics - tools (screwdrivers etc), resealable products, product information, my PPE and properly labelled pesticides. And a big bottle of water! It weighs around 15kg, but this can go up if a sprayer is required. Some premises provide a safe store so that heavier equipment and non-pesticides can be left there for when needed.

Can you tell us about one of your more memorable jobs?

While cleaning a hotel drain to remove drain fly larvae, we found the main interceptor was missing and had become blocked. While holding the torch for drain engineers, the blockage let loose then shot out covering us all in waste. The trip home was smelly, but at least I got a seat to myself!

What do you want from me?

Understanding what the food sector wants from pest management



Bayer CropScience has teamed up with BRC to undertake a huge piece of research to help both the food and pest management sectors understand each other better.



PCO
PEST CONTROL OFFICER



FSM
FOOD SAFETY MANAGER

WHAT'S MOST IMPORTANT REGARDING CONTACT AND QUOTING?

Why is the FSM looking for a new PCO?

What are the challenges and problems on site?

What are the physical characteristics of the site?

Can the PCO identify and understand my challenges?

Does the PCO understand audit standards?

How experienced and qualified is the PCO?

WHAT CAN WE LEARN?

Your technicians should be profiled as 78% of FSMs listed the technician as their key contact. You should demonstrate an understanding of the relevant food safety standards.

WHAT'S MOST IMPORTANT REGARDING IMPLEMENTATION?

Quoting the right price

Meeting customers' communication preferences

Demonstrating knowledge and expertise

The site assessment

Advising on how to 'pest proof' the site

Identification of any problems

WHAT CAN WE LEARN?

Both parties' priorities here are highly complementary. You should provide a really detailed site assessment complete with clear recommendations. Plus you should never forget your pest prevention advice which should be embedded into the training you give to staff.

WHERE WOULD THE FSM LIKE GREATER FOCUS?

Having the PCO identify site-specific needs

Educating site staff on pest risks

Communications between the PCO and site team

WHAT CAN WE LEARN?

You should deliver training to all relevant staff to specifically address the challenges on their site.

The initial findings of the research were unveiled at the BPCA North West Regional Forum, but if you missed it, we've got a quick recap of some of the headline findings here.

Bayer and BRC conducted five detailed qualitative interviews with technical managers of large pest management companies in the USA and UK to map the stages of their working relationship. They then investigated these stages with 200 telephone interviews with pest technicians and an online survey of 200 quality assurance and food safety managers (FSMs).

Due to differences in survey administration, PCOs selected their top three from a pre-populated list. FSMs listed their top three as free text responses, which were then categorised to match the PCO attributes list.

FSMs EXPECT MULTIPLE VISITS BEFORE CONTRACT IS AWARDED

38% expect at least 2 visits

34% expect at least 3 visits

ONLY 28% OF FSMs SAID THEY ALONE ARE RESPONSIBLE FOR THE PEST MANAGEMENT RELATIONSHIP



SERVICE TOP 5: WHAT WOULD YOU LIKE MORE TIME SPENT ON?

| | | |
|----------------------------------------|----------|----------------------------------------|
| Inspections and problem identification | 1 | Inspections and problem identification |
| Pest proofing | 2 | Pest proofing |
| Identifying products required | 3 | Understanding audit standards |
| Training site staff | 4 | Training site staff |
| Understanding audit standards | 5 | Reporting |

WHAT CAN WE LEARN?

Provide inspection and planning checklists that detail the responsibilities of the PCO and the site teams. Improve the site staff's basic pest management knowledge, and give detailed training on the site pest management programme. This empowers and commits the site staff to participation via pest identification, pest proofing, and hygiene.

FSM'S TOP VALUED SERVICE ATTRIBUTES

| | | | | |
|--------------------|-----------------------------------|----------|-----------------------------------|---------------------|
| PCO'S GUESS | Clear communication and reporting | 1 | Confidence and quality | FSM'S ACTUAL |
| | Price | 2 | Knowledge and expertise | |
| | Knowledge and expertise | 3 | Clear communication and reporting | |
| | Confidence and quality | 4 | Availability and responsiveness | |
| | Honesty and trustworthiness | 5 | Thoroughness | |
| | Availability and responsiveness | 6 | Honesty and trustworthiness | |
| | Thoroughness | 7 | Price | |

WHAT CAN WE LEARN?

FSMs care more about the quality of the work you do and the confidence they have in you than they do getting pest management at the lowest price!

“BRC Global Standards is delighted to partner with Bayer to understand the different requirements from both pest control officers and food safety managers and see how they compare. The revealing insight creates the basis of a better working relationship, which will lead to stronger resilience in this technical area. This is good news for all stakeholders, including consumers.”

JOHN TOMLINSON, GLOBAL SALES AND MARKETING AND APAC DIRECTOR FOR BRITISH RETAIL CONSORTIUM

“This is the first large-scale piece of research of its kind and we are pleased to be partnering with BRC to start bridge-building between the two professions. The results will greatly assist in developing the best pest management programmes possible.”

RICHARD MOSELEY, NATIONAL ACCOUNT AND TECHNICAL MANAGER, BAYER CROPS SCIENCE

Let's talk BPCA Registered



Everyone in the sector seems to have an opinion on BPCA Registered – BPCA's new in-house individual recognition scheme. We've taken a list of the most commonly asked questions about the scheme and asked Ian Andrew, BPCA Chief Exec, to answer them for PPC readers.



Why is BPCA introducing a new continuing professional development (CPD) scheme?

BPCA was the first membership organisation within the sector to make qualification and

CPD achievement mandatory for its technical employees. For a long time, BPCA members have been asking that we recognise and reward their employees for this commitment to professionalism.

As a membership association we exist to meet the needs of our members so when it became apparent that a majority of members also wanted BPCA to manage their CPD scheme, we felt now was the time to look at how we could deliver both these member requirements within one package.

The result is BPCA Registered. The scheme uses qualification achievement to categorise their technical skills and knowledge, alongside a CPD scheme. The CPD scheme includes using the approach of analysis and reflection to recognise learning that takes place informally and in the field as a valid contribution to continuing professional development.

BPCA Registered is only open to BPCA member companies and we believe that this will become a significant member benefit.

How do BPCA Registered categories work?

To launch we will have three categories:

- BPCA Registered Affiliate will recognise those working in a non-technical role within the pest management sector.

- BPCA Registered Trainee is for those employees who are working towards becoming qualified pest controllers. For example, those working on a company traineeship or a recognised apprenticeship programme. As with our membership criteria, these employees will have a maximum of 18 months to become qualified.

- BPCA Registered Technician is for those member technicians who have achieved a minimum of the Level 2 qualification (or equivalent).

As the scheme develops over the next couple of years, additional categories will be added, recognising those employees who have committed to higher qualifications. While the detail of these categories has still to be worked out, the diagram below explains how employees could progress in the future.

How does BPCA Registered differ from other CPD schemes currently on the market?

Ultimately we want CPD to actually reflect a commitment to continuing professional development. CPD shouldn't be about collecting a specified amount of points per year. It's about progressive development year-on-year. Rather than focusing on points, we want employees to focus on specific areas they want to develop and then set new goals once they've achieved those.

To support this, BPCA Registered will recognise CPD that is reflective of the pest controller's role, introducing 'unstructured learning' and 'reflection' into the scheme.

This means that when an employee has learned something new, perhaps through watching a colleague carry out a specialist activity or through a discussion with a technical adviser, this learning will be recognised as CPD.

These points can be added by the employee after undertaking some reflection. This will mean answering a few simple questions online such as:

- What have I done?
- What have I learned?
- How will this enable me to do my job better?

This isn't an onerous task, just a few sentences and the job is done.

Structured CPD, such as classroom and online training courses, attendance at events and exhibitions, etc, are all still relevant and important to CPD. We will ensure that we have the widest range of these types of activities available to our member employees.

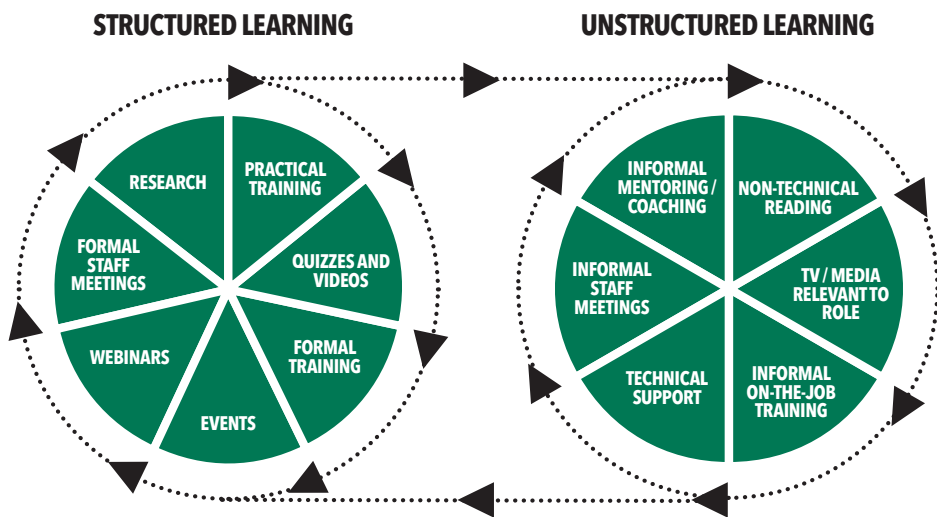
As well as BPCA activities, we will partner with many training providers and event organisers and you'll be able to access their events easily through the BPCA Registered web portal.



The proposed progression route for recognising the achievements of the employees of BPCA members. Future/specialist levels are currently unnamed.



Examples of how BPCA Registered will recognise both structured and unstructured forms of learning.



- BPCA Registered has been created because members asked for us to recognise individual employees and run our own CPD scheme
- There will be three categories at launch and new categories are planned to recognise higher achievements
- The scheme recognises unstructured CPD - no matter how you've learned something, it can be counted
- Individual techs will be able to show they are qualified to carry out pest control with the BPCA Registered card
- Both individual employees and company admins will be able to manage their CPD online.



What are the key benefits of BPCA Registered?

A key benefit for members of BPCA Registered is that individual technicians will be able to demonstrate that they are qualified to

carry out pest management activities.

As part of the scheme, technicians will receive their own ID card which clearly states the qualifications they hold and the date that they achieved them, with expiry dates where relevant. The card also carries confirmation that they are a BPCA Registered technician, trainee or affiliate.

Another key benefit is that technicians, or company administrators, can better manage the planning and collection of CPD. Each individual technician will have their own personalised CPD webpage where they can log in and see how many CPD points they currently have, what qualifications we hold for them and what CPD activities are available to them to achieve what they are looking to achieve.

Through this page, technicians can access their personal CPD accounts where they can reflect on and upload for themselves CPD that's been achieved informally or during their day-to-day work.

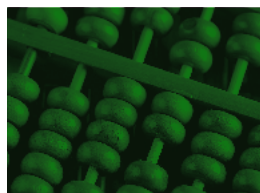
Also available to them is our brand new online learning site which enables

technicians to collect CPD through online training courses and technical quizzes. The benefit here is that, once these are completed, CPD points will be automatically allocated to the technician's account, enabling real-time updates.

This integrated approach makes the whole CPD process much more convenient and efficient for the pest controller and member companies.

How many CPD points do you need to achieve each year?

All BPCA Registered employees will be required to meet a minimum requirement of 20 CPD points per annum. However, employees can build up as many points as they need to achieve their development goal for the year.



FIND OUT MORE

bpc.org.uk/registered

registered@bpc.org.uk

BPCA Registered in action



BPCA Registered takes a different approach to continuing professional development to other schemes in the sector, but the differences might not be easy to see until put into real life situations. Karen Dawes, BPCA Training Development Manager, has created some example situations so you can see what it will be like to use the scheme.

ACHIEVING AND RECORDING CPD CAN SOMETIMES BE A CHALLENGE DUE TO TIME CONSTRAINTS



SOLE TRADER ONE TECHNICIAN

Member A is a sole trader offering a range of general pest management services mainly working with rodents and insects. She covers an area with a radius of 50 square miles and works primarily in the domestic market. She set up on her own two years ago and is experiencing a good rate of growth.

BIGGEST CHALLENGE

Achieving and recording CPD can sometimes be a challenge due to time constraints. As a sole trader, she is solely responsible for carrying out all pest management activities and any spare time needs to be focused on developing her business.

As a result, her CPD is very ad-hoc, and it currently tends to be more around making sure she can record 20 points rather than driven by any developmental goals.

THE BPCA REGISTERED SOLUTION

For her CPD to be manageable and effective, she needs a scheme which is flexible and will work around her requirements. CPD needs to become an integrated part of her working life rather than another task to be completed.

BPCA Registered will enable her to use the learning that she gains on the job as CPD.

She will also be able to register for online learning in areas where she needs to develop and she can do this in her own time, at her own pace. The outcome will be that her CPD will be relevant to her role and recording it won't continue to be an added burden on her already busy life.



SMALL COMPANY FIVE TECHNICIANS

Member B is an SME working regionally. The team has five pest control technicians and carries out both commercial contract and domestic pest management activities. The team is a mix of experienced and novice technicians although all are qualified to at least Level 2 Award in Pest Management. The technical manager likes his novice employees to learn from their more experienced peers as he feels that this can be more valuable to them than sending them on training courses.

BIGGEST CHALLENGE

The challenge is that the mentoring his technicians are giving cannot be recorded for their CPD requirement. This means that they have to take additional time out of their working hours to attend events and training in order to achieve their 20 points.

THE BPCA REGISTERED SOLUTION

To ensure the best use of time and resource, Member B could develop training plans for each of his employees and build mentoring in as part of the wider programme. That will mean that other activities such as attending events and training courses could be used as additional CPD resource where mentoring isn't appropriate. This planned approach ensures that all learning is being recorded, time off the job is kept to a minimum and CPD development is more focused on the technician.

Through BPCA Registered, both formal and informal mentoring is recognised as valuable CPD. If he has a formal mentoring programme he can apply for this to be CPD accredited and his technicians will receive points based on their contribution to each other's learning.

If it's informal mentoring, where an experienced technician is demonstrating a process to a novice technician, CPD can still be claimed through the unstructured route. All that's required here is that those claiming CPD to reflect on what they have learned through answering a few online questions.



WHAT SHOULD BE RECOGNISED AS CPD? WE WERE PLEASED TO SEE THAT ON-THE-JOB AND PRACTICAL TRAINING CAME OUT TOPS.

BPCA Registered at Regional Forums

We conducted polls at Regional Forums asking what our members and their technicians are looking for from BPCA Registered. The results were very interesting and, in some areas, taught us not to make assumptions. Here are some of our key findings...

CAREER PATH

We wanted to know if a planned career path was vital to technicians and we're pleased to find that 76% felt it was important or very important. As BPCA Registered develops in 2019 and beyond, those with higher qualifications will be recognised; it's good to know we're on the right track.

POINTS FROM WHERE?

If BPCA Registered is to provide real benefits, we need to develop a model that works for our member technicians. We asked where they got their CPD points currently. We weren't surprised that the vast majority are collected from exhibitions and Regional Forums, as these cover a wide range of subjects.

We dug deeper and found the top two reasons people attend pest control events is for the topics discussed and for CPD points.

WHAT SHOULD BE RECOGNISED AS CPD?

We were pleased to see that on-the-job and practical training came out tops. This is just what we had in mind when we developed BPCA

Registered and we're pleased that we're on the right track.

We asked what they would like to see at future Regional Forums. Guess what came up – practical training sessions!

Responses are from 29 participants at the BPCA Glasgow Regional Forum.



MEDIUM COMPANY 60 TECHNICIANS



Member C set up in business ten years ago and has grown to become a company employing 60 employees working across north-west England. The MD wants the company to be recognised as a professional pest management business and all technicians are encouraged to develop their skills and achieve higher qualifications. The company mainly does contract work in the commercial and public sectors.

BIGGEST CHALLENGE

As part of business development, the MD often has to compete for tendered contracts. He wants to be able to use the professionalism of technicians as part of the tender process in order to maintain contracts and win new ones. The MD also feels that having trained technicians is a positive marketing message to use when promoting the business.

THE BPCA REGISTERED SOLUTION

When applying for tenders, it is important that you differentiate yourself from competitors. Often all companies will have the relevant policies and processes in place and so all will receive the same scores. It is often unavoidable at this stage to avoid the tender being decided on the price.

By demonstrating the skills and commitment of the employees, it is possible that this will differentiate the company sufficiently to be able to win the contract based on value rather than price.

In addition to CPD, BPCA Registered also offers a professional recognition scheme that distinguishes qualified technicians. By joining the scheme, all technicians will become BPCA Registered Technicians with the opportunity, as the scheme develops, to continue to higher categories, depending upon the level of qualifications achieved.

The company technicians will also be provided with BPCA Registered ID cards which will contain a list of the qualifications technicians held.

LARGE COMPANY 300 TECHNICIANS



Member D is a large company working nationally with branches across the UK and 300 employees across all branches. The business has a good reputation and is well known and recognised as a pest control business.

The company has an in-house training and development programme in place for all employees. It covers all types of pest management including specialist areas and works across all markets.

BIGGEST CHALLENGE

Managing the CPD of all its employees is a challenge particularly in relation to ensuring that all employees understand the benefits that it brings to them individually. The company would also like to build CPD into training programmes so that it becomes more of an integrated process.

THE BPCA REGISTERED SOLUTION

With large teams, it's often difficult to maintain the motivation and purpose of employees on an individual basis. It takes a lot of resources to keep on top of it all. By encouraging employees to not only take responsibility for their own CPD but to give them the tools by which to manage it and the incentive to do well, management becomes much easier.

As well as providing personalised CPD accounts for each individual employee, BPCA Registered also enables company administrators to view and manage groups of employees.

As the scheme develops, we will also offer a company 'league table' facility so that employees are motivated to achieve the highest level of CPD. As a member of BPCA Registered we will work with you to develop reports and processes to keep your team on track with their CPD.

HOW TO JOIN BPCA REGISTERED

If you work for a BPCA member company you'll be automatically enrolled onto BPCA Registered, unless the main contact for your employer opts out.

If you're the main contact for your company and want your organisation to be BPCA Registered, contact our team today and we'll make sure your company is on the scheme.
registered@bpc.org.uk

This benefit is only available to BPCA member companies and therefore individual technicians must talk to their employer.



MEET THE MEMBER

Mr Bumble and his 'Pollination for the Nation' road trip

BPCA members do amazing things, all over the UK. One such amazing member is Jim Webster (aka Mr Bumble) from BeesKnees Pest Control.



Jim is taking time out from pest management to travel the length of the UK to build awareness of the vital role pollinators play in everyone's lives - particularly the humble bumblebee. He'll be doing it all in his tiny Bumble-mobile.

Mr Bumble and his team will leave for Land's End on 13 April 2019 to begin a countrywide tour. They'll be stopping off at a selection of garden centres, schools, education centres, town halls, parks, youth clubs and care homes to educate the general public about pollinators. He'll be distributing information cards and talking to children about how important it is to look after bumblebees.

He's inviting all bee-friendly pest controllers to join him on his mission to educate the nation.

Jim is a part of Beewise, the BPCA's special interest group on bees. The campaign will be supported

by BPCA, Beewise and the Bumblebee Conservation Trust. He's also asked local beekeepers, vegetable producers, and other interested parties to help him on his journey.



Mr Bumble in his Bumble-mobile, a Daewoo Matiz designed and built by Attitude Autos of Ambrosden, Oxfordshire.

HE'S INVITING ALL BEE-FRIENDLY PEST CONTROLLERS TO JOIN HIM ON HIS MISSION TO EDUCATE THE NATION.

PPC caught up with Jim for a quick interview to see how his plans were coming along.

What is 'Pollination for the Nation'?

It's a programme we devised to increase awareness of the importance of pollinating insects. The goal is to educate and inform. I do this in the guise of 'Mr Bumble' - a fun and friendly character, designed to engage with children. I have a knack for being able to communicate with children on their level, and liked the thought of visiting schools and groups educating the kids and hopefully spreading the BeesKnees ethics, I devised the 'Pollination for the Nation' talk and Mr Bumble pseudonym.

What are you raising awareness of?

The key theme is that we need pollinators more than they need us. We're encouraging people to turn areas into pollination-friendly land.

We'll also be talking about the different types of bumblebee within the UK, the lifecycle of the bumblebee, and most importantly, how to look after and live with bumblebees!

What's your road trip plan?

Initially, I'll be leaving Buckinghamshire to arrive 14 April at Land's End, stop over and depart Lands End 15 April. Depending on the support we receive from business and organisations, we'll be stopping to deliver education as we go. We'll stop at BPCA and BBCT headquarters, finishing up at John O'Groats.

We are anticipating 70-90 miles per day, leaving time for stop-offs. I think the trip will take two weeks.

The car will be driven by 'Mr Bumble', followed by his pollinating tribe or 'Baby Bumbles'. We're still actively looking for support teams through the route rather than one team following bottom

to top. Buckinghamshire Freemasons are supporting, along with BBCT.

How can other people help?

We're not looking for financial contributions, however, anyone that can help with accommodation, fuel by the tank, seeds/plants for donating to stop-off points or groups along the way. We need support teams to follow the car through the country swapping over at specific points.

Any contacts in local radio or TV that can help advertise the programme, local garden experts or celebrities who will support the initiative would also be appreciated!

Ideally, we would like national and independent pest management professionals to understand the 'Pollination for the Nation' initiative. Education does not mean losing a client - it means gaining a client who knows they can trust their provider.





We would love to be followed across the UK by bee-friendly pest service providers, from each area we cross through. PCOs can become more aware of the importance and benefits of our bee pollinators, sign up to the Beewise Code of Conduct, and display the 'Pollination for the Nation' logo.

Who are you hoping to speak to on the way?

Lots of children and anyone who would like to know more about pollinators. Mayors, councillors, head teachers, scouts, guides, cubs, beavers and youth groups. It's our children who can turn this situation around.

Our job as pest service providers is to educate, inform and make aware - not just on pollinators, but in all pest management. Prevention is better than cure, otherwise, all our industry provides is the best way to kill something.

You're obviously really passionate about this project. Why do you care so much about bees?

I remember sitting in a clients loft, next to a bumblebee nest. The light was on and the bumblebee flew straight over me into the nest, completely ignoring me. I watched them for what seemed like ages.

It did not seem right to destroy a creature that was so inoffensive, in that environment and, unbeknown to me at the time, so beneficial and important to our planet and its inhabitants.

I met a local person, Clive Hill, who knew a bit about honeybees and bumblebees. Clive and I met, I asked if it was really viable to re-home a bumblebee colony - especially from a loft or compost bin or tumble dryer hose or under a shed.

We had to learn when it is best to collect, the structure of the colony, how it works as a colony, the best way to re-home, the best type of box for re-homing, where to re-home and much more.

After a time, it was apparent that if we can educate the people where they are living we would not need to rehome them.

So, why bees? We all must surely have a passion for something. For some its football, golf, or cricket. Mine just happens to be bees (and fishing!)

ABOUT BEESKNEES PEST CONTROL

The company started life in 1989 as a lift car/door cleaning specialist. They diversified throughout the years to include, property services, health and safety survey assistance, motor/tank room cleaning, but only for lift and local authorities. They then added feral bird prevention, then finally rodent and insect services within the same customer base.

Fifteen years ago they started working with the general public and Jim says he's found working and meeting people in their own environment very rewarding, and loves meeting and greeting clients.

BeesKnees also carry out cleaning for special needs people - which Jim describes as a bit like 'Grime Busters'. They do their best to actually meet the people and care about what they are going through. The company motto is to 'make the uninhabitable into inhabitable' but insists that sometimes it's just listening. Jim said to us, "care, consideration and honesty are important, not just within a client's abode. One of the most important lessons I've probably learned over the years is that I have no right to judge anyone. You never know what goes on or has gone on behind the eyes. People of all ages, fortunes or walks of life have been through scenarios I cannot comprehend".



WANT TO SUPPORT 'POLLINATION FOR THE NATION'?

Mr Bumble wants the support of anyone passionate about protecting British pollinators. If you'd like to get involved or learn more about the road trip, contact Jim today!

 beesknees.pestcontrol@gmail.com

The route in April 2019

| Stage | Date | Time | Destination |
|-------|------|------|------------------------------------------------------|
| 1 | 13 | 0900 | Aylesbury HP20 1EA |
| 2 | | 1100 | RAF, Halton HP22 5PG |
| 3 | | 1900 | Land's End Hotel, TR19 7AA |
| 4 | 15 | 1000 | Pentewan Road, St Austell PL25 5BU via Helston/Truro |
| 5 | | 1300 | Masonic Hall, Launceston PL15 9E |
| 6 | | 1530 | Okehampton College, Okehampton EX20 1PW |
| 7 | 16 | 1000 | Taunton TA1 2LP |
| 8 | | 1500 | Chippenham SN14 0AT |
| 9 | | 1720 | The Masonic Hall, Chippenham SN15 3JP |
| 10 | 17 | 1100 | Aylesbury HP20 1EA |
| 11 | | 1430 | Rooksley, Milton Keynes MK13 8PU |
| 12 | | 1700 | Northants & Hunts, Towcester NN12 6LD |
| 13 | 18 | 0930 | Coventry CV5 8BW |
| 14 | | 1300 | Leicester, LE4 0BG |
| 15 | | 1630 | BPCA HQ, Derby DE24 8GX |
| 16 | 19 | 0900 | Derby DE24 8EB |
| 17 | | 1200 | Chesterfield S40 2WG |
| 18 | | 1500 | Doncaster DN4 8DG |
| 19 | 20 | 0930 | York YO10 3JA |
| 20 | | 1330 | Durham DH1 3LE |
| 21 | | 1700 | Hexham NE46 1PS |
| 22 | 21 | 1030 | Hawick TD9 0EG |
| 23 | | 1430 | Edinburgh EH15 3HS |
| 24 | 22 | 1000 | Falkirk FK2 9HR |
| 25 | | 1300 | BBCT HQ, Stirling FK9 4NF |
| 26 | | 1700 | Perth PH1 3NZ |
| 27 | 23 | 1230 | Inverness IV1 1RY |
| 28 | | 1600 | Tain IV19 1AE |
| 29 | 24 | 1130 | John O'Groats KW1 4YR |

'Why we didn't treat your bees' leaflet

NOW AVAILABLE TO DOWNLOAD AND PRINT IN THE PRINTSHOP

BPCA's special interest group, Beewise, has been as busy as a, well, bee! To finish off an action-packed year for the group, a new document has been created that BPCA members can give to clients to explain why we won't destroy a bee colony in their homes or businesses.

bPCA.org.uk/printshop



BPCA
PrintShop

MEET THE MEMBER

No.500!

John Carrington runs Ashford-based firm, Hademly, which recently graduated to full serving membership from the BPCA probationary scheme, becoming BPCA's 500th servicing member.

So, with a touch of celebration, PPC93's 'Meet the Member' is all about how Hademly's main man, John, got into the pest management industry, how he climbed to full membership, and what his plans look like for the next five years.

Why pest management?

After spending some 36 years in the banking industry, John took redundancy and looked to move into something which matched his interests in animal behaviour and biology.

"I'm fascinated by how animals behave, and after working in the banking industry for so many years, I wanted to do something which was completely different, and helped people in some way."

After following 'pest management' as a subject through local and national news, John found himself more and more engrossed in the subject, and researching what was required to set up business as a 'pestie'.

Getting qualified

John joined BPCA's probationary scheme in February last year following a week with Paul Westgate, on the BPCA General Pest Control Course in Stafford during spring. John passed the RSPH level 2 exam with flying colours and looked to Membership Manager Kevin Higgins for guidance in the popular Starting Out in Pest Management course in July.

"That week seemed like a long time ago now, but it was so worthwhile to engulf myself in learning for the full week. In fact, as good as Paul was (and he was good), I also found it beneficial to spend time with other people on the course to learn about their experiences."

Generalist or specialist?

Entering the industry, John sees his business as offering general pest management services but also developing a key specialist area. Of course, being a small company, Hademly needs to grow before it can self-

select, but John's interest is in bed bugs and working with other BPCA members to manage this pest, especially in urban areas. John found the BPCA Bed Bug course very interesting and beneficial when he attended it last year.

"I think it's so important to have a specialism in what we do. I am interested in bed bugs, and would like to grow this service, but I'm not about to drop everything else. That wouldn't be a good business decision."

At the same time as qualifying for his RSPH Level 2, John also did his EAL Level 3 Qualifications related to Electrical Installations which enables him to deliver electrical installation and maintenance services. John has found these courses extremely useful when it comes to electronic fly killers (EFKs) and highlighting risks of rodent damage to electrical circuits. Looking ahead, John has the BPCA Advanced Technician in Pest Management qualification in his sights, but knows there is plenty of experience he needs to take in first.

What makes Hademly different?

All companies have an idea how they are subtly different from their competition, and John and the team at Hademly are no different.

"We do like to focus on giving customers peace of mind. Whether this is in survey form, advice on prevention or telephone advice.

"Pest management is something people need reassurance on, so that is a core part of our business."

What made you want to opt for full membership?

"If we want to reassure customers, both commercial and domestic, it makes sense for us to be full members. The benefits aside, being able to reference our membership to customers has been extremely powerful.



PEST MANAGEMENT IS SOMETHING PEOPLE NEED REASSURANCE ON, SO THAT IS A CORE PART OF OUR BUSINESS.

"The referrals, access to the Technical guys and BusinessShield is something I've already benefited from. I'm also quite excited by BPCA Registered, so looking forward to that."

What does your next five years look like at Hademly?

"Well, first off I'm a grandad, so no doubt my next five years will involve quite a lot of grandad duties. But with Hademly I'd like to push forward with bed bugs as I've previously said, and start to introduce some of my family into the business, especially my youngest son."

"We can't be sure of a good wasp season every year, so growing my commercial client base will mean that when a good season does come along, it's a bonus and not core business."

PPC readers can learn more on Hademly's website which, in John's words, is still "under construction". But, John is keen to hear from other members, either via telephone or in person.

hademly.com



Want the PPC team to come out and meet you? Have an idea for an article you want BPCA to feature?

 hello@bpc.org.uk

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 12 June 2019

2019 SCHEDULE

| | | |
|-------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EDINBURGH TUESDAY 29 JANUARY SPONSOR | YORKSHIRE +AGM WEDNESDAY 12 JUNE SPONSOR | LONDON WEDNESDAY 20 NOVEMBER SPONSOR |
| NORTH WEST WEDNESDAY 13 FEBRUARY SPONSOR | SOUTH EAST THURSDAY 5 SEPTEMBER SPONSOR | EASTERN COUNTIES WEDNESDAY 11 DECEMBER SPONSOR |
| SOUTH WEST WEDNESDAY 27 FEBRUARY SPONSOR | GLASGOW WEDNESDAY 18 SEPTEMBER SPONSOR | |
| MIDLANDS WEDNESDAY 3 APRIL SPONSOR | WALES THURSDAY 3 OCTOBER SPONSOR | |
| NORTHERN IRELAND THURSDAY 16 MAY SPONSOR | NORTH EAST WEDNESDAY 16 OCTOBER SPONSOR | MORE INFO View the agendas and register for your Regional Forum www.bPCA.org.uk/regional-forum |

Training calendar



COURSES AND EXAMS

| Level | Course/exam | Member price £ | Exam | Start date | Location |
|---------------------------------------------------------------------------------------------|---------------------------------------|----------------|-------------------|------------|----------|
| FOUNDATION | Using Rodenticides Safely | 130 | ✓ | 21/01/2019 | Derby |
| | | | | 26/02/2019 | South |
| | | | | 13/05/2019 | North |
| | | | | 09/09/2019 | Derby |
| | Practical Vertebrate Trapping | 155 | | 22/01/2019 | Derby |
| | | | | 27/02/2019 | South |
| | | | | 14/05/2019 | North |
| | Practical Insect Control | 155 | | 10/09/2019 | Derby |
| | | | | 23/01/2019 | Derby |
| | | | | 28/02/2019 | South |
| 15/05/2019 | | | | North | |
| Sales Skills | 155 | | 11/09/2019 | Derby | |
| Customer Service Essentials | 155 | | 21/06/2019 | North | |
| | | | 04/12/2018 | Derby | |
| Starting and Managing Your Own Pest Management Business | 155 | | 01/05/2019 | Derby | |
| | | | 10/01/2019 | South | |
| | | | 25/03/2019 | Derby | |
| | | | 10/05/2019 | Scotland | |
| | | | 20/06/2019 | North | |
| Bed Bug Control | 155 | | 06/02/2019 | South | |
| | | | 07/05/2019 | Scotland | |
| | | | 17/09/2019 | Midlands | |
| Certificate in Bird Management | 155 | ✓ | 24/01/2019 | Derby | |
| | | | 16/05/2019 | North | |
| General Pest Control - Level 2 Award in Pest Management | 1010 (non-res 803) | ✓ | 12/09/2019 | Derby | |
| | | | 10/03/2019 | Stafford | |
| | | | 02/06/2019 | Stafford | |
| | | | 22/09/2019 | Stafford | |
| Insect Identification | 155 | | 05/02/2019 | South | |
| Safe Use of Aluminium Phosphide | 310 | ✓ | 08/05/2019 | Scotland | |
| | | | 16/09/2019 | Midlands | |
| Safe Use of Air Weapons for Effective Pest Control | 155 | | 26/03/2019 | Midlands | |
| | | | 04/09/2019 | North | |
| Managing Pest Control Contracts | 310 | | 09/04/2019 | North | |
| | | | DAY 1: 26/06/2019 | Derby | |
| Pest Management on Waste Sites | 155 | | DAY 2: 24/07/2019 | Derby | |
| | | | 30/04/2019 | Derby | |
| ADVANCED | Becoming a Field Biologist | 155 | | 29/01/2019 | Derby |
| | Becoming a Technical Inspector | 155 | | 22/05/2019 | South |
| | | | | 21/05/2019 | Derby |
| RSPH Level 3 Award in Safe Use of Fumigants for the Management of Invertebrate Pests | 780 | ✓ | 04/03/2019 | Derby | |
| | | | 30/09/2019 | Derby | |

EXAMS ONLY

| Exam | Start Date | Location |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------|
| MULTIPLE EXAM DAYS – take any of these exams, on any of the dates: RSPH Level 2 Award in Pest Management (£155) BPCA Certificate in Bird Management (£100) BPCA Certificated Technical Inspector (£155) RSPH Level 2 Award in Safe Use of Rodenticides (£40) RSPH Level 3 Award in Safe Use of Fumigants for the Management of Invertebrate Pests (£305) | 15/01/2019 | Derby |
| | 28/01/2019 | Edinburgh |
| | 12/02/2019 | North West |
| | 20/02/2019 | Derby |
| | 26/02/2019 | South West |
| | 02/04/2019 | Midlands |
| | 17/04/2019 | North |
| | 15/05/2019 | Northern Ireland |
| | 24/05/2019 | South |
| | 07/06/2019 | Stafford |
| | 11/06/2019 | Yorkshire |
| | 01/08/2019 | North |
| | 15/08/2019 | Derby |
| | 04/09/2019 | South East |
| | 17/09/2019 | Glasgow |
| BPCA Advanced Technician in Pest Management (£245) | 29/01/2019 | Edinburgh |
| | 08/02/2019 | South |
| | 14/02/2019 | North West |
| | 28/02/2019 | South West |
| | 04/04/2019 | Midlands |
| | 17/05/2019 | Ireland |
| | 09/05/2019 | Scotland |
| | 13/06/2019 | Yorkshire |
| | 17/06/2019 | Derby |
| | 14/08/2019 | Derby |
| | 06/09/2019 | South East |
| | 19/09/2019 | Glasgow |
| | 30/01/2019 | Derby |
| | 13/02/2019 | North West |
| | 27/02/2019 | South West |
| 03/04/2019 | Midlands | |
| BPCA Certificated Field Biologist (£305) | 16/05/2019 | Northern Ireland |
| | 23/05/2019 | South |
| | 12/06/2019 | Yorkshire |
| | 05/09/2019 | South East |
| | 18/09/2019 | Glasgow |

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| | 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 Online course and exam | £75 | £100 |
| Foundation Certificate in Pest Management | £50 | £75 |
| Completing Risk Assessments | £40 | £60 |

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.

ENQUIRIES AND BOOKINGS

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