

pest

The independent UK pest management magazine

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dog's
life!

Issue 56
April & May 2018



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coming soon?



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through cooperation



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Searching for rodents
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new tricks



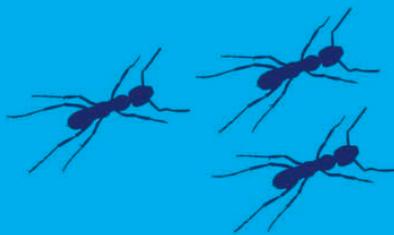
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As the industry's only independent magazine, **Pest** aims to deliver a mix of unbiased news, impartial advice and topical technical features. We are committed to being as inclusive as possible covering every sector of the pest management industry.

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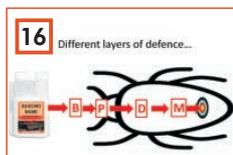
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(Wo)Man's best friend...

The cover of **Pest** almost always features a pest, be it an exotic invasive such as the Asian tiger mosquito, or the more familiar and ubiquitous Norway rat. For issue 56 we have broken with tradition to recognise the important role of the canine nose in pest management. No less than eight dogs are included in this issue and they are all making pest management more efficient and effective. Their noses are tackling jobs that would take humans either much longer or, in the case of South Georgia (pages 22-23) and the Antipodes (page 25), would be pretty much impossible.

Bed bug detector dogs have become fairly common in Northern Europe but slower to take off in the South. But that's set to change as we discovered at the Italian conference in Rome. In a special six page feature, starting on page 27, we review the Italian market and the many family businesses clustered around the northern Italian cities of Milan, Bologna and Padua.

One thing that's guaranteed with dogs is that the pests won't develop resistance to them. In our main technical feature (pages 16-17) Clive Boase goes back to basics to explain how pesticide resistance develops and what pest professionals can do to slow its inevitable progress.

We also review the progress being made in implementing rodenticide stewardship (pages 10-11). There's still some way to go but let's hope that, like pesticide resistance, better stewardship becomes part of our industry's DNA and so makes progress inevitable.

We have until 2020 to show that it's making a difference.

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Rodenticide online sales guidance update

Guidelines for online sales of anticoagulant rodenticide products have been updated to take account of the recently introduced smaller packs and lower active ingredient levels in products for general public use.

As readers will know, all such rodenticides must now be lower than 30ppm of active ingredient. For wax block formulations, maximum pack sizes are now 100g for mouse baits and 300g for combined mouse and rat products, or 50g and 150g respectively for grain, pellets or pastes.

The guidelines have been published by the Campaign for Responsible Rodenticide Use (CRRU). They seek to ensure online sales of products comply fully with product authorisations, explains CRRU Point Of Sale work group leader, Rupert Broome. "In line with 'bricks and mortar' sellers, this includes clear demarcation between general public and professional rodenticide users," he says.

"The guidelines include a reminder to online sellers that, for professional use rodenticides, they are also subject to the same strict point-of-sale controls as all other retailers."

Copies can be downloaded from the CRRU website or the **Pest** library.

More funds to fight malaria

At the Malaria Summit held in London on 18 April 2018, Bill Gates announced that the Bill & Melinda Gates Foundation will invest another £700m up until 2023 to fund further research in an attempt to end malaria. The Summit was organised to coincide with Commonwealth Heads of Government meeting,

The Foundation also pledged an additional £50m to go with the British government's £100m commitment to the Global Fund to fight AIDS, tuberculosis and malaria, announced by Theresa May on 17 April.

BASF, Bayer, Mitsui Chemicals, Sumitomo Chemical Company and Syngenta also announced their support for research, development and the supply of innovative products to save lives and help eradicate malaria by 2040 under the 'ZERO by 40' banner. This announcement came in advance of World Malaria Day on 25 April 2018.

With the support of the Gates Foundation, the Liverpool-based Innovative Vector Control Consortium (IVCC) have reaffirmed their commitment to use their expert knowledge and chemical resources to supply and develop innovative vector control solutions to help reduce the malaria burden, which today is increasingly being threatened by insecticide resistance.



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More mole control...

Dave Archer, one of our newest **Pest** Technical Advisory Board members, gave a practical demonstration on mole control at PPC Live. When he arrived at the Three Counties Showground he couldn't resist setting a few traps. Management there were so impressed that he was asked to run a training session for showground groundsman, Mike Bainbridge. Following the session Mike, pictured right, was pleased to report that he had almost immediately caught two moles.



Arriving at PPC Live **Pest** editors Frances McKim and Helen Riby soon discovered that they had parked right behind Dave Archer's ISUZU. The sign on the back caught our attention: 'No dead moles left in this vehicle overnight.' Dave told us it has been a great advert for his services resulting in plenty of calls.



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Cleankill celebrating again!

Surrey-based Cleankill Pest Control is celebrating after double success at the prestigious Gatwick Diamond Business Awards presented at the Effingham Park hotel on 15 March. In the run up to the ceremony Cleankill was shortlisted in seven categories and then, on the night, scooped the Responsible Business Awards and was runner up in the Customer Service category.

Paul Bates, managing director, said: "We are incredibly proud and thrilled to have won one award and been runner up in another. The awards attract some very high-calibre, large companies so it's brilliant to have our efforts recognised."



L-R: Cleankill directors, Clive Bury; Paul Bates; Jon Whitehead and Ian Miller with master of ceremonies, Brian Conley and category judge Kate Thorpe from the University of Sussex

Abate wins major logistics contract

Wymondham-based Abate Pest Management has recently secured a service agreement with storage and warehouse specialists, Johnston Logistics UK. On their 130-acre site at Snetterton, Norfolk, Johnston Logistics UK carries out one million transactions every year and has around 400,000 pallets moving through 640,000 sq ft of warehouse. Abate will implement a full-service pest programme, including full electronic service reporting for each visit to assist with the company's AA Grade BRC approval.

Fancy 6 months in Oz?

At PPC Live, held on 14 March in Malvern, delegates arriving at the event were greeted by Gary Journeaux, managing director of Australian servicing company, Competitive Pest Services. So what was Gary doing there?

Following the success of a similar mission to PestEx last year, Gary is, once again, looking for UK technicians to pack-up and go to Australia for six months to help him out during his busy summer season.

So, if a good salary plus sun in December and barbies on the beach appeal, get in touch with Gary. Email: garyj@cpests.com



Gary Journeaux, right, is looking for recruits. Pictured with Pest's Helen Riby at PPC Live



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International rover Richard retires

After 33 years travelling the globe for BASF, and before this Sorex, **Richard Smith** has retired.



A business studies graduate, Richard first worked in a marketing role for an animal health company in the Midlands before joining Sorex as commercial manager in 1985. Initially his time was divided between export markets and the UK. At this time he launched Sorgene 5 which was to become the UK's leading agricultural disinfectant brand.

From the late 1980's Richard concentrated on developing Sorex's international business, which included the launch of Sorex difenacoum baits, first in Europe and then across selected countries in Australasia. Following the success of this strategy, Richard chaired the company's working group resulting in the launch of Sorex International. This took on the responsibility of marketing both the Sorex and Network brands outside of the UK.

Since the acquisition of the Sorex Group by BASF in 2008, Richard has held a variety of roles within its pest control sector, ranging from market approach strategy management to sales excellence management in Europe, Middle East and Africa.

Not surprisingly, given the geographic spread of Richard's career, he worked in over 40 countries and experienced many more airports!

Mitie appoints new pest MD

Mitie has appointed **Andy Halsall**, right, as interim managing director of its pest control business.

Andy specialises in business transformation, having most recently led a turnaround programme at facilities management company OCS Group, which included Cannon Pest Control.

Prior to this, he established an international consultancy sector at equipment renter Speedy Hire, after having been interim managing director at Santia, formerly Connaught.

In their press release, Mitie explains that Andy has been brought in to further develop the strategic direction of the company and drive potential opportunities to achieve its growth aspirations.

Readers who follow company activities in this sector will remember that both Santia and Cannon Pest Control were sold to Rentokil, in February 2011 and January 2017 respectively.

Mitie's previous managing director, **Peter Trotman**, pictured below right, left the company at the end of March. This draws to an end the direct association Mitie had with Eagle Pest Control. Founded by Peter's father, Eagle was acquired by Mitie in July 2003 to become its pest control division.

Peter commented: "From the early age of thirteen I was 'catching rats' with my father on Cotswold hill farms. This is my 40th year in pest control and certainly not my last! I am as keen as ever to further my career. I love the dynamics and technical challenges within our industry's changing landscape. Needless to say, a lot has changed, mainly for the better and pest control is now clearly recognised as a professional business requiring a high skill set."



New national sales manager at PestFix



In early March, **Sean Byrne** joined Littlehampton-based distributor, PestFix in a newly created role of national sales manager. Sean's career began in the pest control industry in 2008 working for nearly nine years for Rentokil. He started as a local surveyor before moving to the role of a 'specialist services consultant' – a role where he provided sales management, training and coaching to 23 local surveyors.

For the past 14 months he was employed by Ground Control, the grounds maintenance company. In this new position at PestFix, his remit is to help expand market share across the

company's broad range of pest control products and training packages. Based in Milton Keynes, Sean says he is ready for lots of motorway miles ahead of him!

50 years at Rentokil – is this a record?

This February, **Christopher Barratt**, pictured left, retired having notched up a remarkable 50 years' service on the frontline with Rentokil Pest Control. During his time at Rentokil Pest Control, Christopher has been a technician, a serviceman and a supervisor.

He has worked all over the UK during his career. He once ran two teams at the same time, in South Wales and Bristol, and ended up arranging a skittles match between the two, with South Wales claiming victory. For many years Christopher was involved in fumigation in London, Manchester and Glasgow. Perhaps most interestingly though, he was working in Iraq in 1982, but had to leave because of the Iran/Iraq war. While working in Iraq, his hotel was hit by a bomb from an Iranian fighter jet, blowing out his hotel window.

Christopher's start in pest control came from his father-in-law, who worked for Rentokil Pest Control as a service manager. One day he offered to take Christopher out to jobs in Brecon and Crickhowell and ended up offering him a job with the company. He never looked back.





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Pest control goes to Turkey

The IV Biocidal Conference was held in Antalya between 25-29 March 2018. It was judged a great success with around 70 participants from around the world.

Europe was well represented. Bertrand Montmoreau on behalf of the Confederation of European Pest Management Associations (CEPA) spoke about EN16636 and CEPA Certified.

Stefano Scarponi from the B. L. Group covered the use of Aquatain AMF for mosquito control and Rentokil's Andy Brigham and Robert Shaw discussed the future of rodent control.



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International speakers in Rome

As well as the extensive coverage of Italian topics at the Associazione Nazionale della Imprese di Disinfestazione (ANID) conference held on 21-23 March in Rome (see pages 27-33) international affairs were also well covered. In a special global session, five international speakers presented highlights of their approach to pest control.

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L-R: Henry Mott (president of CEPA), Rune Bratland (Norwegian Pest Control Association), Paloma Castro (director general of CEPA), Kevin Lemasters (president of EnviroPest, Denver, Colorado) and Quim Sendra (president of the Catalonia Association)

Two UK companies sold to US

US-based Rollins has purchased Birmingham-based AMES Group and Hampshire-based Kestrel Pest Control. Rollins, best known by its subsidiary pest control brand of Orkin, has grown its business via the franchise route, but in recent years and in certain markets e.g. in Europe and Australia, this has switched to growth by acquisition. In July 2016 the company bought Safeguard Pest Control in Kent, so this may well not be their final UK acquisition.

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Mega-mergers and acquisitions

Within these pages we have written on numerous occasions about the mergers and acquisitions involving the multinational companies – see **Pest 53**: October & November 2017.

As an update, the European Commission and the US Justice Department have conditionally approved Bayer's proposed acquisition of Monsanto. The takeover is likely to be completed in the second quarter of 2018. Meanwhile, following the successful merger completion between Dow and DuPont, the new name for the company was revealed – Corteva.

Pest control is star performer at Rentokil

The publication of the Rentokil Initial annual results each March always makes for interesting reading. Those for 2017 proved no exception. At ground level pest controllers love moaning about what Rentokil is up to, but take a look at their figures as well as the scope of the business and you can't fail but be impressed.

In 2017, operating profit, which excludes the results of disposed businesses, increased by 14.8% in constant currency to £295m. Ongoing revenue, also excluding disposed businesses, increased by 14.5%, with all regions contributing to growth. Asia performed particularly well, increasing revenues by 37.3%, with North America growing by 21.1%. Revenues in the Pacific and Europe rose by 7.7% and 7.3%, respectively, while the UK and ROW region delivered growth of 6.8%. Revenue in pest control grew strongly at 21.4% during the year, of which 5.8% was organic revenue (as opposed to revenue derived simply by company acquisition.)

In total, the company acquired 41 businesses for £281.1m. The majority of these, 33, were in pest control. For the future, Andy Ransom, CEO of Rentokil Initial, said: "We continue to see a strong pipeline of value enhancing acquisition opportunities going forward. Our anticipated spend on acquisitions in 2018 is estimated to be in the region of £200m to £250m."

World leader

Looking at the Annual Report itself, (you can download a copy from the **Pest** library) for pest control the company states it is the world's leading commercial pest control business. It stands in number one position in 44 markets, number two in 13 markets and number three in eight markets globally. Significantly, following acquisitions, Rentokil now lies third in North America.

The company sees the pest control market as offering long-term growth prospects of around 5% and is targeting growing and emerging markets. It estimates the global commercial pest control market to be worth c. £6bn and the total global pest control market to be c. £11bn. To get an idea of the significance of pest control to the business, 60% of ongoing revenue (£1,328m) comes from this sector and 81% (£240m) of profit.

The report is certainly worth studying as it also breaks down the business by sector and by country. For example, in the UK and rest of the world sector, pest control accounts for 46% of ongoing revenue, 90% in North America, 38% in Europe, 68% in Asia and 46% in the Pacific area.

Gender pay gap in pest control

In the recently published report covering the disparity, known as the gender pay gap, between the different average hourly salaries earned by men and women, 500 firms revealed their figures. Those involved with pest control performed well.

Overall, the government data showed 74% of firms pay higher rates to their male staff, whilst just 15% of businesses with more than 250 employees pay more to women. For Rentokil Initial the average woman is paid 2% less than the average man, for Ecolab its 4.6% and good on Mitie Cleaning & Environmental Services, 0.2% less.



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Stewardship going well, but more to deliver



Rodenticide stewardship has dropped off the agenda just lately with the toxic to reproduction changes to pack labels and the reductions in pack sizes for amateurs taking the limelight. But, don't be fooled that the battle is over – it's only just begun. Associate editor Helen Riby reflects on stewardship and takes a look at the second UK Rodenticide Stewardship Regime annual report, published this March.

After a period when hardly an issue of **Pest** went by without another major announcement from the Campaign for Responsible Rodenticide Use (CRRU) on the development of the UK Rodenticide Stewardship Regime, things have been much quieter of late. Reading the 2017 annual report provides some explanation of why, as a number of the key achievements in 2017 have been either outside the professional pest control sector, or more to do with the supply chain, than the actual use of products at the sharp end.

Before considering the achievements to date, it is important to remember that the UK Stewardship Regime has been developed at the request of the Government through its regulators, the Health & Safety Executive (HSE). It is a voluntary regime which, for now, is the Government's preferred means of tackling the environmental issues associated with rodenticide use.

Of course, governments, whatever their colour, don't actually do anything. They create policy and set regulations which influence outcomes but, it is what individuals actually do, that makes the difference.

Take the current concerns about plastic waste. In a recent TV programme in which, among others, the Environment Secretary, Michael Gove and the celebratory environmentalist, Chris Packham, were being interviewed. Picking up an old flip flop that had been discarded on a beach, Chris pointed out that this wasn't the Environment Secretary's flip flop and that if the plastic waste problem is to be solved it is down to individuals to change their behaviour.

Just like governments, organisations like the Campaign for Responsible Rodenticide Use (CRRU), which is working to implement stewardship, cannot solve problems alone.

For this reason, it is not surprising that the focus of the individuals working hard on our industry's behalf within CRRU has been on information provision, education and training to encourage suppliers and users to change their behaviour.

Labels are legally binding

Stewardship may be voluntary, but it is supported by the legal requirement to follow the label so, for example, supplying professional, stewardship-labelled products for outdoor use to users without proof of competence is illegal.

Because stewardship is about changing behaviour, some of the most important findings in the 2017 annual report come from the Knowledge, Attitude and Practice (KAP) market research.

Gamekeepers doing well

Take-up of training has been particularly impressive in the gamekeeping sector with the percentage of gamekeepers holding stewardship certificates rising from 37% in the baseline year of June 2015 to 60% in June 2017.

Gamekeepers really seem to have embraced the stewardship concept. Awareness of the Stewardship Regime increased markedly

from 30% in 2015 to 56% in 2017. This group has also improved its knowledge of active substances and, encouragingly, environmental toxicity is becoming an important consideration in product selection. The use of permanent baiting by gamekeepers is also moving in the right direction; down from 41% to 25%.

Awareness of the UK Rodenticide Stewardship Regime among professional pest controllers was also significantly up, 83% compared to 53% in 2015 and around 90% of pest professionals say they now complete Environmental Risk Assessments before rodenticide use. The proportion of pest professionals holding a rodenticide qualification has also increased from 96% in 2015 to 98% in the 2017 survey. Knowledge of active substances is also high, with 93% knowing the active in the rodenticides they apply. The percentage adopting permanent baiting has fallen from 53% to 41%.

Farmers lagging behind

The KAP survey shows that the farming sector is lagging behind. Just 23% now hold a qualification, up slightly from the previous survey (19%) and only 16% know the active substances in the products they use. Awareness of CRRU and the stewardship regime is also low at just 12%, up marginally from 8% in the baseline survey.

However, as the report highlights, the approach taken with farmers has been different. Membership of approved Farm Assurance schemes is the main way in which this user groups meets the proof of competence requirements to allow them to buy professional outdoor rodenticides.

The Best Practice Work Group has been working to tighten the criteria these schemes must meet. It first established a set of 13 'key

indicators' to measure whether the assurance scheme standards were in line with the Code of Best Practice on rodent pest management. These include things like: evidence of a hierarchical risk assessment; evidence of actions taken to avoid infestations; checking that site surveys have been conducted and checking bait is placed correctly and replenished sufficiently.

A step in the right direction

There has been some criticism of the use of Farm Assurance membership rather than certificated training as proof of competence.

Whilst in an ideal world it would be better if all farmers purchasing rodenticides were qualified, CRRU's tightening of the criteria and its work with farm assurance auditors to ensure they understand how to assess compliance, are steps in the right direction.

A list of 11 schemes which meet the new requirements has been published on the CRRU website. Farmers outside the approved assurance schemes have three options:

- 1) Take an approved training course and show the certificate when purchasing rodenticide;
- 2) Employ a certificated pest professional;
- 3) Use products authorised for amateur use.

Point of sale audits

Work has also been ongoing to get outdoor professional use rodenticides sellers (both those with 'bricks and mortar' premises and online sellers) to register for a stewardship point-of-sale audit. Administered by BASIS Registration, this initiative requires authorisation holders (i.e. the rodenticide manufacturers) to ensure UK sellers of their professional use products pass the audit and maintain this standard for the future.

Sitting alongside this is the online reporting tool for allegations of point of sale non-compliance, i.e. whistle blowing on organisations that are selling professional, stewardship-labelled rodenticides without asking for proof of competence.

We have highlighted this procedure on two occasions within the pages of *Pest* magazine. We make no apology for doing so again, as the web page where you can report infringements has been changed.

If you suspect the point of sale rules are



being flouted please report it at: <https://www.thinkwildlife.org/stewardship-regime/report-a-concern/>

Future plans

The annual report also highlights future plans. Most notable is the development, by July this year, of a resource, probably a presentation and/or booklet, to maintain the knowledge of users that was gained when achieving their stewardship approved certification. This will support membership of a Continuing Professional Development (CPD) scheme, such as BASIS Prompt, even though, as the report points out, membership of such a scheme is not mandatory under stewardship.

The report also states that it seems likely that the CRRU Code of Practice will need to be updated in 2018. CRRU also expects to provide guidance on burrow baiting.

On the agricultural front, further support and guidance for quality assurance scheme auditors, including the provision of training, is envisaged.



Copies of the CRRU annual report and the GOG response can be downloaded from the CRRU website at www.thinkwildlife.org or from the *Pest* library

In summary

Changing the practices of tens of thousands of professional users of rodenticides will take some time and reducing detectable residues of rodenticides in wildlife will take even longer but, good progress is being made.

The last word should go to CRRU UK chairman, Dr Alan Buckle, who says: "There are promising early signs of things going in the right direction, but much remains to be done."

Government response

Responding to the second annual report on the UK Rodenticide Stewardship Regime, the Government Oversight Group (GOG) expressed itself as largely satisfied with progress and described the UK Rodenticide Stewardship Regime as 'fit for purpose'.

The GOG is chaired by the HSE and includes representatives from HSE Northern Ireland, the Department for the Environment, Food and Rural Affairs (Defra), Public Health England, Natural England, the Welsh and Scottish Governments and an independent scientific adviser.

Specifically the GOG response says: "Government greatly welcomes the focus on Continuing Professional Development (CPD) and CRRU's plans to support individuals to maintain their knowledge by producing additional resources."

The response continues: "Management of environmental risks relies on high levels of knowledge among those who use rodenticides outdoors, in order to limit the potential for secondary poisoning of non-target species and other unintended exposure." For this reason the GOG also welcomes: "The improvement in the proportion of respondents undertaking formal rodent control/rodenticide use training. As rodenticide users undergo stewardship training, Government will expect to see this reflected in future survey results."

Referring to the barn owl monitoring data on second-generation anticoagulant residues in barn owl livers GOG says that it: "Accepts the conclusion that the lack of difference in SGAR accumulations by barn owls compared to the baseline years suggests that full implementation of stewardship has yet to be reflected in a reduction in barn owl exposure."

Red kite monitoring added

As well as the barn owl monitoring, the GOG has decided it is important to assess a further species that will be exposed to rodenticides via the consumption of dead or dying rodents. The red kite has been selected for this additional monitoring.

Finally, the response reaffirms that: "Government scrutiny will focus on the extent of any behavioural change among those operating in the sector and the measurable effect this has on residue levels in non-target animals. Government will fully evaluate the regime after five years of operation at the latest." That deadline is in 2020.

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Progress made on Voluntary Trap Approval

In **Pest 52**: August & September 2017, we first reported on Dr Sandra Baker's presentation at the International Conference on Urban Pests (ICUP) where she called for an end to double standards in spring trap welfare. What's happened since? The good news is that the government's Animal and Plant Health Agency (APHA) is getting on board.

At ICUP 2017 Dr Sandra Baker, from the Wildlife Conservation Research Unit at the University of Oxford's Zoology Department, spoke about her research on the likely welfare impact of unregulated break-back traps and mole traps. She proposed a Voluntary Trap Approval (VTA) scheme to eliminate poor welfare traps from the market.

Such a scheme would allow unregulated traps to be tested in the same way that other (regulated) spring traps are currently tested for approval – using killing trials conducted by the government's Animal and Plant Health Agency (APHA). Over the following few weeks we covered the story further including advice from Sandra on which break-back traps to avoid.

We are pleased to report that Dr Baker has since heard from APHA that they have been contacted by a trap manufacturer who was aware of the proposal (probably via **Pest**, suggests Sandra!) and was interested in having their unregulated traps tested.



APHA told Dr Baker that they were prepared, in principle, to begin testing unregulated break-back traps in the same way as they test regulated traps.

In order to pass these tests, traps need to cause irreversible unconsciousness in the target species within five minutes in 80% or more of 12 tests. This is based on the AIHTS (Agreement on International Humane Trapping Standards) criteria. Regulated traps (not break-back traps) that have been tested and approved are then listed on the relevant Spring Traps Approval Order (STAO).

Unregulated traps that pass the same tests are not eligible to be added to the STAO, nor is APHA accredited to give certification. However, manufacturers of successfully tested traps would be able to market them as having 'passed APHA tests to AIHTS standards'.

Dr Baker predicts that a Voluntary Trap Approval (VTA) scheme would drive improvements in trap welfare quality by incentivising manufacturers to reduce the time taken by their traps to cause irreversible unconsciousness.



Dr Sandra Baker reports progress being made

Manufacturers would pay for tests – as do manufacturers of regulated traps – and the price would be approximately £6/7,000 per trap type for mice and a little more for rats.

Manufacturers would own their test data on times to irreversible unconsciousness and could do with it as they liked. They could choose to keep their tests and test data private, post their data on their own website or advertise it on their packaging.

Independent website

In addition, Sandra told us that she is looking into the possibility of an independently hosted website on which manufacturers could voluntarily display their test data for public scrutiny.

Unfortunately, tests on mole traps will not be possible at this stage because of practical difficulties associated with testing traps underground.

Following their conversation with Dr Baker, APHA are consulting the Home Office to check whether they can go ahead with testing unregulated break-back traps. We will update you on that soon.

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Working together

Pest management can be a competitive business. There are plenty of anecdotes about undercutting on price leading to poorer service standards. But, it doesn't always have to be like that. There are times when working together provides a better outcome for everyone; pest management businesses, pest management clients and for pest control itself.

The older you get, the more you realise that there's no such thing as a totally new idea. Take the British Pest Control Association's (BPCA) shiny new Contract Sharing Network (CSN), which recently celebrated its first birthday. Developed by a group of small and medium sized BPCA member companies, the CSN allows its members to work together, for example, to extend their geographic coverage, by subcontracting work to each other.

Those of you with reasonably long memories might recall the UK Pest Controllers Organisation (UKPCO) which was set up in 2004. This small organisation was the first to fully support Continuing Professional Development (CPD). One of its major goals was to provide support for smaller independent businesses to cover holidays and sickness and to assist each other on large projects. This was effectually subcontracting work to each other in the knowledge that high professional standards would be met by all members.

BPCA's Contract Sharing Network however has taken the concept much further than the UKPCO ever did. This has been achieved through three key actions:

- Firstly, the establishment of a detailed Code of Conduct for CSN members;
- Secondly, by setting up a management committee with the power to expel members who don't follow the code from the Network;

- And, finally by adapting the technology used by the Find a Pest Controller tool on the BPCA website so that CSN members can easily find each other.

David Lodge of Beaver Pest Control, who chairs the CSN management committee, explains: "Entering into an agreement with a subcontractor whose ethos you haven't reviewed first hand isn't a great way to ensure your customer is happy long term. Personally, I was struggling to find trusted companies to deliver a great service in other regions. In addition, there was always the worry that your subcontractor might try to take advantage of the situation and pinch your business.

"Trying to get a feel for the way a subcontractor is run, and the people behind it, is of utmost importance. For all that is good about BPCA's Find a Pest Controller tool, it didn't show me enough detail on the people behind the business. However, now it's a little different.

"Because being in the network shows up as an advanced filter on the BPCA Find a Pest Controller tool, members can now see who is prepared to subcontract work through the



CSN code of conduct, and who isn't."

So what's in the code? The key aspects are:

- All subcontracting work will be administered through a Service Level Agreement (SLA) (or enhanced alternative);
- Additional sales to satellite sites must be agreed with the primary contractor;
- Price increases from the subcontractor must be agreed with the primary contractor before being implemented;
- Subcontracted organisations are required to carry out tasks directly, and not further subcontract duties;
- Invoicing and payment schedules must be agreed at the point of quotation;
- The subcontracted company will carry out a quality assurance (QA) check after six months and thereafter annually. This should be completed by a senior member of staff, ideally the technician's manager if not a sole operator. The QA check also has a section for the end user to complete assessing the company providing the service. The full document is then sent by the subcontractors to the



Beaver's David Lodge chairs the CSN management committee

CSN in practice

Interestingly Bounty Pest Control and Beaver are already working together through the Contract Sharing Network. Martin Rose-King commented: "We couldn't be happier with the services Beaver are supplying on our behalf."

Beaver's David Lodge says that the company has also subcontracted a couple of contracts to Pest Solutions in Scotland. "There haven't been too many CSN arrangements set up yet. But that will change," he concludes.



primary company to provide confirmation, or otherwise, that all is well.

The concept of sharing work means that a network of smaller companies can now compete for bigger contracts. However, all too often these days that means going through a formal tendering process and that's something that can be pretty daunting in itself.

Tendering help at hand

Exhibiting for the first time at PPC Live was Harris Associates, a company that, amongst other things, specialises in helping businesses put together successful tenders. Managing director Robert Harris explained that the company also helps smaller companies develop the right internal structures, systems, policies and procedures, so helping them grow. Robert has also been advising on the Contract Sharing Network.

Robert explains: "There's more to tendering than ticking boxes. The average bidding contractor has a typical 1 in 15 chance of winning. Our success rate is a lot higher. This is because we understand that success depends on your accreditations, policies, company structure, quality systems, qualifications, experience, financial soundness and not just things like the price. Many businesses already switched on to tendering will be a step ahead, but that's



Robert Harris, centre, with Colin Gooch, right and Robert Nook of the Gooch Group at PPC Live

where we come in. Our tendering services can take your business to the next level. We help you to improve your systems and the shape of your business to make sure your business fits the profile required by the client.

As well as offering a complete tender production service, Harris Associates also works with clients to find suitable tendering opportunities.

Robert continues: "Most companies think of public tenders when expanding, but there are a wealth of private tenders that companies publish. These are more difficult

to locate and many are issued to partners, like us and by word of mouth only."

Robert also points out that he is working in partnership with BPCA to provide training to pest professionals to improve their knowledge on tendering and their chances of winning.

Proof of the pudding, as they say, is in the eating and, coincidentally, Beaver Pest Control has recently been working with Harris Associates to put together, what has turned out to be a successful bid, for the City of London contract.

Everyone's a winner!

"There's a misconception in the pest control industry that all pest control companies are rivals," says Alex Burrell of Bird and Pest Solutions. "Not only is this untrue, but in order to find solutions that aren't counter-productive it is often important that as a community we work together to support each other."

Alex continues: "At Bird and Pest Solutions we carry out pest control across a multitude of different sites throughout Kent, protecting customers working in a wide variety of industries. On many occasions we've had to work closely with the pest control companies servicing sites, which neighbour our customers' sites, to ensure pest issues are solved effectively."

Bird and Pest Solutions look after the pest control for a large shopping centre where the individual stores are responsible for making their own pest control arrangements. One of these uses Bounty Pest Control so, naturally, Alex Burrell maintains a close working relationship with Bounty director, Martin Rose-King.

"When we learnt that Martin and Bounty had become qualified and registered to give LANTRA and RSPH training, through Bounty Consultancy Services we contacted him about providing extra training to our technicians to help with their knowledge and help towards their Continuous Professional Development," explains Alex.

Technicians Daniel Green and Martin Cruickshank have now



Pictured left is Martin Rose-King, Bounty Consultancy Services with Daniel Green, Bird and Pest Solutions

attended a number of training sessions with Bounty and are looking to take their RSPH Level 2 Award in Pest Management examination shortly.

Alex concludes: "We look forward to our continued cooperation with Bounty and hope that our relationship with them demonstrates the importance of all pest control companies working together to achieve a common goal."

Pesticide resistance: Should we be concerned?

Are we too ready to blame resistance for pest control failures when, in reality, it is poor pest control practice that is the more likely cause, or, is resistance increasingly becoming a real challenge to control? Clive Boase, from the Pest Management Consultancy, explored this and other questions when he took his audience at PPC Live back to resistance basics. Associate editor, Helen Riby reports.

If the number of delegates who were prepared to stay for the last presentation of the day at PPC Live in Malvern this March is anything to go by, there is a good deal of interest in pesticide resistance. Clive Boase kicked off his presentation with some hard data. He showed that, whilst the first documented case of resistance in arthropods went back to 1914, it wasn't until the 1950s/60s that the number of cases began to increase at a more rapid rate, as the graph below shows.

Pesticide resistance isn't new, but it is an increasing threat. Data for houseflies (*Musca domestica*) on UK farms from 1993 showed that around a third were resistant to natural pyrethrins. That proportion is likely to have grown in the intervening 25 years. More recent data from 2007 for bed bugs in London indicated that almost every field strain tested showed resistance to either bendiocarb or alpha-cypermethrin.

For rodenticides the figures are even more up-to-date. The report from the University of Reading into anticoagulant resistance in rats and mice published earlier this year showed that the UK is home to more anticoagulant resistance mutations in Norway rats than any other country worldwide and that five of these confer resistance which is of practical importance. The report measured massive resistance across the whole of central southern England and pointed out that the rest of the UK cannot relax because lack of sample availability means we just don't know how extensive resistance is.

Where does resistance come from?

Clive explained: "Mutations and resistance are not caused by pesticides. Mutations occur naturally during egg and sperm formation. Some mutations are good, some have no impact at all and some can be bad. Most go unnoticed. If you went to a remote

island where no pesticides had ever been used, the likelihood is that a very low frequency of resistance genes would be present in the pests there."

So how does this low level of resistance develop into a situation where virtually all the population is resistant? On the left of the diagram below is the original susceptible population where just a few orange individuals are resistant. Following treatment with the pesticide, it is largely these orange resistant individuals which survive – the position shown in the centre of the diagram. The population then builds and the next generation is almost entirely resistant. When this population is treated with a pesticide virtually all individuals will survive.

In real life, it will take more generations than this but, in principle, this is the process which leads to a resistance problem. And with insects it can happen in the course of



Clive Boase speaking at PPC Live this March

one season. In April the houseflies are controlled, but by September the insecticide is no longer effective.

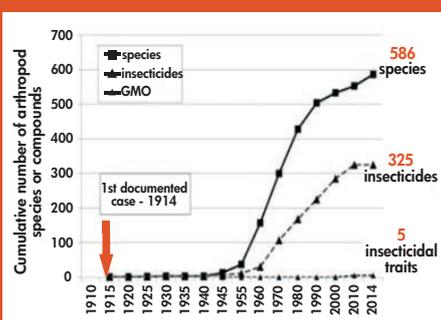
Should we be surprised that resistance comes about through a random process and a series of accidents? Well, no! 160 years ago, Darwin described this as evolution, the process of natural selection which weeds out unfit individuals.

Resistance is complex

But resistance is more complex than this because there may be different mechanisms involved. Insects and other creatures have many potential layers of defence.

Clive explained the range of different mechanisms, using the fictitious pesticide – Bugs No More. Bug No More targets the pest's nervous system, but pests may develop a number of different mechanisms that will prevent it doing its job:

Pesticide resistance – is it important?



How does resistance increase from a rare mutation to the point where most individuals carry it?



- B is for behavioural resistance. For example, there is evidence that some cockroaches in the USA have become averse to certain sugars in insecticide baits. They no longer eat the bait. "This bait aversion is genetically inherited but, fortunately as far as we know we don't have cockroaches with this trait here in Europe," added Clive. Behavioural resistance is something which has also been observed in the UK in rodents with, for example, mice refusing to enter bait boxes;
- P is for penetration. There is evidence of cuticle thickening in insects – most recently in bed bugs – which prevents the insecticide reaching its target. This is not something that has been observed in rodents, yet;
- D is for detoxification or, in other words, the breaking down of the pesticide before it gets to the target site. Many insects will encounter natural toxins in their foodstuffs from time-to-time, so they already have enzymes designed to breakdown these toxins;
- M is for mutated target site. Pesticides are effectively keys to the target site lock. When the pesticide fits the lock the pest dies, but some pests change the lock to their nervous system through mutation. Now the key doesn't fit the lock. This mechanism confers a very high level of resistance.

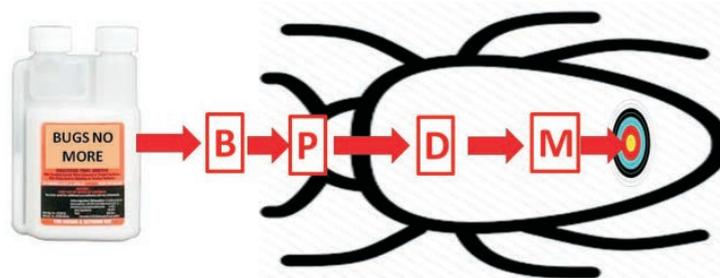
Can resistance be slowed down?

As resistance is a natural process, it is actually inevitable that pests will develop resistance at some stage, but can the onset of resistance be slowed down?

Fortunately the answer is: Yes. Here is Clive's advice on what pest professionals can do to protect the pesticide tools they have:

- Don't use pesticides. Sounds a bit drastic but as all pest professionals know there are plenty of alternatives used as part of Integrated Pest Management (IPM). Cleaning, using fly screens, EFKs, trapping, heat treatments and so on. But, as Clive said: "These non-chemical options might seem attractive, but they are not really promoted in a serious way. They are generally seen as a bit low tech and, unlike pesticides where the regulators demand data, there's little, if any, research data being generated to give pest professionals the know-how or confidence to rely on them completely;"
- Where insecticides are used, then the best advice is to avoid treating

Different layers of defence...



everywhere. This may seem counter intuitive, but think about it and it does make sense once you understand how resistance builds up. Only using pesticides when absolutely necessary and leaving some susceptible individuals in the population, will slow the onset of resistance. To explain further Clive outlined two different ways a house fly larvicide had been used in the USA and Europe. In the US, the larvicide was added to chicken feed so the insecticide passed through the chickens resulting in every dropping containing insecticide. Flies were eliminated at first, but two years down the line resistance had become widespread. In contrast in Europe, the feed additive was used as a spot treatment to manure resulting in patchy treatments and survival of some susceptible flies. Resistance has been much slower to develop in European chicken houses;

- Avoid using residual insecticides. This may not always be possible, but it makes sense if you can;
- Use a higher dose (where the label allows) which not only kills the susceptible individuals but also the heterozygous – those individuals which have inherited their resistance from one parent;
- Alternate between pesticides with different modes of action. This is easier said for some pests than others – see tables opposite. For cockroaches there is a good choice of products. Indeed the only class of insecticides that isn't available in the UK is Bti. Consequently, resistance is not a massive problem right now. On the other hand for bed bugs the position is not so good as the choice is more limited. When it comes to rodenticides, we are in a really weak position with huge reliance on the anticoagulants. Alphachloralose is an option, but it has limited use and there is a cholecalciferol product from BASF awaiting regulatory approval;

Is there a white knight horizon?

Technology could come to the rescue through gene editing and something called CRISPR – Clustered Regularly Interspaced Short Palindromic Repeats.

How would this work? For example a strain of mosquitoes could be developed that was unable to spread malaria. By giving this strain a genetic advantage (using CRISPR) over naturally-occurring malaria vectors, it could gradually replace them, and so prevent malaria transmission. Or insecticide-susceptible insects could be given a genetic advantage (using CRISPR) over resistant strains and so would predominate. Such technology raises huge ethical issues, but there is huge potential.

Whilst high-tech solutions like CRISPR might be employed in the international fight against malaria if the ethical issues can be addressed, in professional pest control there is little prospect of money being available to support this technology. So do we have to put up with resistance? Clive asked his audience to spend a few minutes thinking about the options. They didn't have long but some interesting ideas emerged:

- More training needed – something similar to rodenticide stewardship for insecticides to make it compulsory;
- Product labels should specify mode of action and give clear advice on product rotation;
- More information on where resistance has been found;
- Better information on how to detect resistance;
- An in-field resistance testing kit for technicians;
- A hotline to be able to report suspected resistance;
- A greater focus on Integrated Pest Management (IPM);
- A resistance committee/focus group for developing strategies to prevent, or slow, pesticide resistance in public health pests.



Send in your rodent tails for a win win

For the cost of a stamp you can discover the resistance status of both rats and mice in your area.

Not only do you win by discovering if you have resistance problem, but you will also help fill in the gaps on the resistance map of the UK, as displayed on the Rodenticide Resistance Action Committee (RRAC) website (see page 40).

This really is too good an opportunity to miss. The genetic testing is completely free – the costs are being covered by RRAC, along with the help of the team of the Vertebrate Pests Unit (VPU) at the University of Reading. From the results you will discover the resistance status of your sample which will guide you in your choice of which rodenticide, if any, is likely to be the most effective.

How to send them in

Sending in your samples is really easy. All you need to do is snip two to three centimetres off the very end of the rodent's tail and pop it into a sealed bag and send it off to the Vertebrate Pests Unit. If you can't post your tails within 12 hours, put them in a freezer until you can post them. Include with your samples, details of where they were collected, plus your contact information so the results can be sent to you.

The only constraint is if your samples are from a location within a 5km radius of an existing data point. In this case, free analysis cannot be provided. But with big gaps across the country, which you



Emily Coan (left) with colleague Clare Jones from VPU were at PPC Live encouraging delegates to send in their tails

can see on the RRAC website, it's certainly worth a try.

A special website has been created by the University of Reading detailing the collecting procedure. See <https://research.reading.ac.uk/resistant-rats/uk-maps/>

It is recommended you contact Emily Coan at the VPU Unit before you send your tails in. email: e.e.coan@reading.ac.uk or Tel: 0118 3788329. A copy of the VPU's tail testing protocol is also available to download from the **Pest** Library.

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That's right – it's white!

Craig Vass of Ashford-based Protakil Kent got a bit of a shock when he went to check one of the squirrel traps he had set on a strawberry poly-tunnel farm just outside Faversham. What greeted him was a completely white squirrel!

Last season the squirrels, which are living in the adjacent woodland, had caused a real problem attacking the strawberries. So, in an attempt to get on top of the problem pre-season, Craig had laid a series of MK4 Fenn traps, all housed in wooden boxes that he had made himself.

On one of his daily rounds checking the traps, he opened the box to discover a snow-white male squirrel. "I had been told by the farm manager that a white squirrel had been seen on a couple of occasions, so I was dead chuffed to catch it," explained Craig. "Another first for me was catching a stoat in one of the other traps."

Whether this is the only albino squirrel in the area only time will tell. Black squirrels are routinely spotted in the Hertfordshire/Cambridgeshire area (as reported in **Pest 14**: March & April 2011). Maybe they could get together as the result might be quite stripy!



Good by name – good by nature



Gary Steadman of G & S Pest Control in Colchester emailed us to say how impressed he had been with a couple of Good Nature traps he had recently bought from Killgerm. He'd been having problems with rats in an engineering factory that he was looking after in Ipswich so decided to give these new traps a try.

"I placed these two traps in an area where there was rodent activity. After two days – bingo – a result. Both the client and I were well impressed. The fact the traps are humane and no poison is used, is a big advantage," said Gary.

The perils of overeating

This poor rat obviously didn't listen to the warnings about overeating! In his attempt to make a quick getaway, clambering over the kickboard in a kitchen in a block of flats, he got stuck. With all four feet off the ground, he could neither go forwards nor backwards.

This was the sight that greeted Andrew Steer of Croydon-based SECO Pest Control when he was first called-in to tackle a family of rats that had found their way along a run of disused pipes into the tenant's kitchen.

"It was quite grisly actually," explained Andrew. "On the far side of the kickboard the other rats had eaten the head and chest off their stuck companion."



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Plenty to see at PPC Live

PPC Live is the UK's newest show – 2018 was just its third outing – but it was well worth the trip out west.



ServiceTracker's Mike Palmer-Day, centre, with Beaver's David Lodge and Radu Asavei



It works like this – Russell's Phil Fountain in full flow with Amanda Mountford looking on



Colin Harrison, right, from Pelsis extols the virtues of a new bed bug monitor see page 38



Bed bug dog Hector, pictured with Merlin's Adam & Catherine Juson, stole the show

PPC Live went west for its third outing, to the Three Counties showground in Malvern, Worcestershire on 14 March. Organisers, the British Pest Control Association (BPCA), reported a decent turnout of 380 visitors, not including the exhibition staff on the 48 stands at the one-day event. Certainly in the morning the exhibition hall was pretty full, but by lunchtime and early afternoon the numbers had dwindled somewhat.

That said, plenty of folk stayed to catch the last seminar of the day when Clive Boase from The Pest Management Consultancy had a full house for his excellent presentation on resistance, see pages 16 & 17 in this issue. Towards the end of the session he even got his audience off their chairs and contributing to two workshops looking at what can be done to manage the development of resistance better.

All the seminars used the now familiar headphones technology. Topics from earlier in the day included the unintended consequence of pest control activities and the need for environmental assessments. Also covered was the impact of technological advances such as smart bait boxes which check themselves, freeing up technicians time and allowing them to be pest professionals not bait box checkers!

All the key UK players were represented and a number of international companies made the trip including Kness and Catchmaster from the USA and Irto Trio from Hungary.

There were a number of new products on show - see page 38 for a round-up of what we found and a number of first time exhibitors including several offering services and consultancy such as Harris Associates, Pest Control In and the Vertebrate Pest Unit from Reading University, see page 18 in this issue.



Clark Stanley-Smith flying the drone

Fortunately, the event was sandwiched between the two appearances of the 'Beast from the East' so, sitting outside for the demonstrations was not too cold, so long as you were well wrapped-up. The demonstrations included birds of prey, air rifles and, as pictured below, Dave Archer of DKA Pest Control



Wired for sound in the seminars



All the outdoor demonstrations were popular. Dave Archer from DKA Pest Control gave a masterclass in mole control

presented a master class on mole trapping methods – with the emphasis very much on practical success, humanely achieved.

The unmanned aerial vehicle (UAV) demonstration was saved by official PPC Live photographer, Clark Smith-Stanley (Profile Studios), who happened to have his commercial drone with him.

While Clark demonstrated the drone, BPCA's Dee Ward-Thompson and Kevin Higgins explained to the audience how they could apply this technology to their everyday practice.

All in all, it was a first class one-day event. Well done BPCA.

read more on the web www.pestmagazine.co.uk



He said what! PelGar's Alex Wade, left, Nic Blaszkowicz and Jen Smithson swap notes



The Bayer Pest Solutions team. From left: Alan Morris, Richard Moseley, Kimberley Watts and Ken Black



Deadline Products' jim Kirk, left & Paula Kearns with visitors from Lancs Environmental Services



Lodi promoted Digrain C40 WP. From left: Tony Knight, Adam Dickens, Roger Simpson and Eliza Nicholls



On duty for Ten, from left: Richard Lunn, Richard Howcroft and James Mendoza



Bell's Shyam Lankani with visitors from Protecthome!



The BASF team: From left: Adrian Gray, Sharon Hughes, Gavin Wood and Helen Ainsworth



Is this the mole that Dave Archer didn't control?



The Severn Hall at the Three Counties showground provided a good space for exhibitors and visitors

Hold your breath – results for South Georgia



© South Georgia Heritage Trust

From left: Will, Wai and Ahu with the Heaney glacier in the background

On numerous times within the pages of *Pest* we have reported on the rodent eradication work on South Georgia, but, this summer (our winter), it is crunch time for assessing the project's overall success. The hope is that South Georgia will prove to have been rodent-free since 2015.

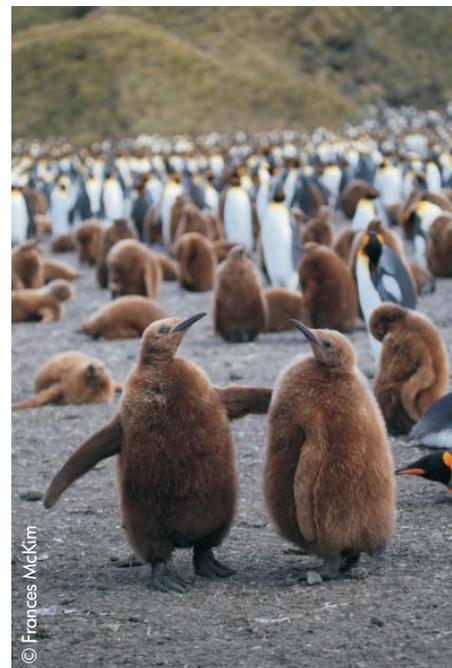
This Antarctic summer, three dogs, 16 people and three vessels are taking part in the fourth phase of the South Georgia Habitat Restoration Project – to date the world's largest and most ambitious project to eradicate an invasive species.

This massive project has been undertaken by a small Scottish charity, the South Georgia Heritage Trust, based in Dundee, which, with its USA counterpart, Friends of South Georgia Island, raised over £7.5 million to finance the work. Planning and fundraising began in 2007 for three phases of fieldwork (in 2011, 2013 and 2015) by an international team of the world's leading experts in eradication work.



© South Georgia Heritage Trust

Bottoms up! Wai gets a closer look at a rodent hole



© Frances McKim

Four species of penguin nest on the island, including some 400,000 breeding pairs of King penguins

Rodenticide manufacturer, USA-based Bell Laboratories, has been involved since the very start as suppliers of the rodenticide used. A specifically formulated, large, green pellet was developed based on brodifacoum. In all, a total of 329 tonnes of bait were manufactured and shipped in special containers.

Since the last extensive baiting work in 2015, no sign of rodents had been detected, but a comprehensive survey is required before the island can be declared rodent free. So 'Team Rat', as it is known, returned once more in October 2017. The survey is following international guidelines which suggest that at least two years should elapse following baiting, before an area can finally be declared free of rodents.

In line with international best practice, the survey is using a combination of detection methods, deploying inert devices, (such as chewsticks, chewboards, peanut butter flavoured wax tags and tunnel and camera traps), along with three specially-trained sniffer dogs and their handlers.

These three small terriers – brothers Wai, Will and their cousin Ahu – have been trained to detect rodents. They come from New Zealand's Department of Conservation and are accompanied by their handlers, Miriam Ritchie and Jane Tansell. The 'dog team' joined Team Rat in December and so far the handlers have walked almost 900 miles and covered a total of over 1,300 miles, searching for signs of rats.

Like the intrepid explorer, Sir Ernest Shackleton who traversed South Georgia on foot and is buried there, Miriam and Jane are unfazed by the scale of the task. This involves sub-sampling a coastline over 600 miles long and a vegetated land mass of 556 square miles.

Miriam explains: "The size of the survey area is vast. Whilst the dogs stay close to us they can detect smells from many metres away, so they help increase the range of what is actually covered on foot. They can also get to areas that are inaccessible to humans, such as nooks and crannies in the landscape, or within the former whaling stations."

Both Miriam and Jane are extremely experienced dog handlers and they are used to working in remote environments. Jane has a veterinary nursing qualification and both of them have worked as handlers with the New Zealand Conservation Department and have trained a number of detection dogs.

Miriam says: "All three of the dogs have a lovely, calm temperament and are very quiet around birds. Their training is as much about



© South Georgia Heritage Trust

Miriam Ritchie with the dog team

ignoring other smells, as it is about recognising rodent odour. South Georgia is famous for its vast penguin colonies and thousands of seals and the dogs' noses are filled with the intense smells of these animals the whole time. They have to ignore all this and simply focus on, and react to, the one extremely weak smell of rodents."

Project Director Dickie Hall said: "The scale of the task is daunting as it is many times greater than any rodent survey previously undertaken anywhere in the world.

"It would be impossible to inspect every square yard of land, so the strategy is to subsample the terrain in such a way as to maximise the chances of detecting any surviving rodents."

We wait to hear the results later this spring.



© Roland Gockel

Hand-baiting in the old whaling station amongst the elephant seals



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Great news – New Zealand's done it!

The champagne corks have very recently been popping in New Zealand as the success of a somewhat similar eradication project on the Antipodes Island group, located nearly 500 miles south east of New Zealand was celebrated. And, just as in South Georgia, the skills of another three rodent scenting terriers were called into play.



© Stephen Horn

The 2,100 hectare Antipodes islands are protected as a nature reserve and are recognised internationally as a World Heritage site for their outstanding natural values.

They had a large mouse (*Mus musculus*) population of about 200,000 which were preying on bird chicks and eggs and also eating plant material, including seeds. Interestingly, the mice have a Spanish haplotype (DNA), not found anywhere else in New Zealand, which indicates they originated from either the 19th

century sealers, or from one of two foreign shipwrecks.

Project Million Dollar Mouse

Eradication planning work began in 2012 and project Million Dollar Mouse was formed. Just as in South Georgia, aerial baiting with three helicopters was undertaken, commencing in 2016. A total of 65,500kg of PestOff rodent bait containing 0.002% brodifacoum was used, purchased from Animal Control Products, now trading as Orillion. The bait was packed in 25kg bags and then into watertight wooden boxes, each holding 700kg of bait.

Well-travelled dogs!

Led by Finlay Cox, this winter (their summer) the New Zealand Department of Conservation's (DOC) monitoring team searched the island for almost a month and found no signs of mice. As in South Georgia, they were assisted by three rodent detecting dogs and their handlers. These were Carol Nanning from DOC with her dog Piri, and Brian Shields, from Auckland City Council with experienced 12 year-old Tui and trainee Pipi, who was brought along for teaching and back-up.

On 18 March 2018, NZ Conservation Minister, Eugenie Sage, announced that mice had successfully been eradicated from the Antipodes Islands.

She said: "This is huge news for conservation both in New Zealand and internationally. The successful Antipodes Island mouse eradication is another landmark conservation achievement which underlines DOC's technical expertise in pest control and threatened species protection."



Ready for off. Handler Brian Shields with Tui accompanied by Carol Nanning and Piri

Amusingly, Piri has her own Facebook page which she shares with her brother Pai www.facebook.com/PaiandPiri. You can also see a charming video of them at work and the project in general, at www.goo.gl/tgZF9t

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Made in Italy

At **Pest** magazine we receive numerous invitations to attend international events, but time, if nothing else, prevents us from attending them all. However, the Italian pest control association (ANID) events are amongst our favourites, as once there we receive a very warm welcome and without fail, return with plenty of material to write about. This year was no exception as **Pest** editor Frances McKim discovered.



Each March the Italian association, Associazione Nazionale della Imprese di Disinfestazione (ANID), holds a national event – an exhibition one year and then a conference the next. This year it was the turn of the conference. Getting on for 500 delegates packed the stylish Auditorium Antonianum in Rome for two full days of presentations on 21-22 March 2018.

All credit should go to ANID for attracting such a large audience of very attentive pest control professionals from within its membership – a figure far larger than is achieved in the UK. In addition, 18 commercial companies supported the event and had small table-top displays within the foyer.

One of the first things to strike you at these events is the strong feeling of 'family'. Within the ranks of the association itself you get the clear impression the organisers, along with numerous 'helpers' from within the membership, are all happily working together to make a success of the event.

Another thing to strike you is the continuity of the members of the association – each year you spot, and then get to know, the same individuals. With the exception of a handful of large multinational pest control companies e.g. Rentokil and Anticimex, Italian pest control companies are predominantly small to medium sized family-owned operations, which surely helps with the 'family' feeling.

Also, there is always a large number of Italian developers and manufacturers of pest control products present. These extend the feeling of 'family' still further, as the ownership of virtually all these

companies is private, lying within the long term control of several families. These companies, such as Bleu Line, OSD and Vebi research and develop products for their home market which, quite uniquely, they also sell direct to end user pest controllers. Each will have a sizable products' catalogue containing their own products, plus a full range of products from the other big manufacturers e.g. Bayer, BASF, Syngenta etc so as to be able to provide a one-stop shop for their Italian customers.

This means, that distributors as we know them, do not have much of a presence. You will not find the big multi-territory exhibitors such as Killgerm, Edialux and PPS at this event which appeals only to the home Italian market. Although they are represented at the exhibition in alternate years, as these are more international affairs.

In addition to selling to their home market, these Italian manufacturers very actively sell their ranges internationally too. Here local distributors will be sought and utilised, as well as selling to customers direct. So, a second, not so thick product catalogue, usually in English, is also produced to cater for these needs. ▶▶▶





Italian manufacturers – a family affair

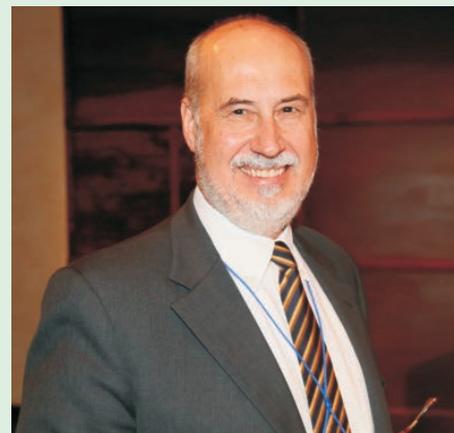
Casting your eye over the programme for the conference, it includes details of the commercial sponsors. Once Bayer, Syngenta and BASF are put to one side, the balance is all Italian companies. If you look where they are based, all fall within a concentrated triangle in the north of the country taking in the area around Milan, running south to Bologna and north to near Venice around the Padua area.

The explanation why many are in the same vicinity is quite simple – several are 'spin-off' companies from the original – experienced members of staff wanting to run their own businesses. One of the longest established is Vebi located in Padua. Amusingly, as CEO Luigi Bazzolo explains: "There are so many companies specialising in rodenticides in the valley around Padua, it's known locally by those in the industry as 'rodent valley'!

The company was originally founded in 1945 by Renzo Bazzolo, a trained pharmacist, who built up the business manufacturing and selling cosmetics, antibiotics, vitamins etc. From his pharmaceutical knowledge he was

aware of the properties of warfarin, so in 1966 he spotted the opportunity to manufacture rodenticides, and the Murin brand was born. Today both branches of the business still exist under the Vebi Istituto Biochimico banner, exporting to more than 50 countries. "It's almost bizarre," exclaims Luigi who joined his father in the business in 1986, "one minute I'm dealing with top of the range anti-wrinkle creams and then the next a rodent issue!"

Also close to Padua is a further pest control specialist manufacturer, INDIA – another family owned company. It was founded in 1932 by Lorenzo Brazzoduro as a business producing disinfectants, before building up



Luigi Bazzolo, son of Renzo, the founder of Vebi

an impressive insecticide and rodenticide portfolio. The company was then acquired in 2014 by the Induchim Group, another family business. Today INDIA is managed by Debora Cazzaro and her brother Giovanni.

Other family-founded rodenticide companies in 'rodent valley' are Newpharm, Zapi and Kollant, although the later two have now

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bucked the family trend. The Zambotto family, founders of Zapi, formed the Pestnet Group in 2016 and now act as distributors in Italy, France and Spain. Founded in 1960, Kollant was acquired in 2006 by Makhteshim Agan Industries (now Adama). Having concentrated on consumer and household products since the acquisition, Adama has recently decided to renew its activity within the pest control sector. As is the way with these companies, Adama is now owned by ChemChina, the company who recently acquired Syngenta. Maybe no more said?

A second cluster of firms reside not far from Bologna. Colkim, founded in 1964 by Giorgio Albertazzi also started manufacturing rodenticides and insecticides. Today the business is run by his daughter and son, Susanna and Carlo.

Servicing heritage

Interestingly two of the other nearby companies owe their foundations to a completely different route. Bleu Line, now the B.L. Group, was founded in Forli in 1982 by Attilio Bazzocchi and today is managed by his son Giovanni with Gloria Padovani.

Prior to this the operation had actually been one of the first pest control servicing companies, founded in 1974 – Pest Control Italiana – but that was sold to Rentokil in 1996 – their very first acquisition in Europe. Readers with good memories will recall this timing coincided with the banning of any further acquisitions in the UK by the Monopolies & Mergers Commission. As managing director, Giovanni explains: “We now have more than 40 people in the company and whilst our Italian home market is very strong in this niche pest control business, we aim to be more professional and extend our product range, not only in Italy but overseas via B.Line Export.”

Bird expertise

Just north of Bologna and based in Modena is the OSD Group. Again the company originated with the acquisition of a pest control company in 1980. From these foundations, owners Daniela Pedrazzi with her husband Paolo Gaibotti have built up a thriving home and export business, based largely on bird control products, but also rodenticides and insecticides. The future looks rosy, as Daniela explains: “We are widening our business further, thanks to the acquisition in October 2017 of Ferbi, a biocides manufacturing company located in Abruzzo.”

Completing this triangle around Milan is GEA. Founded in 1986 by current CEO Giuseppe Braghieri and supported by his son Adriano as general manager, the company makes a range of pest control products for both the professional market with the InPest brand and under the InVerde brand, for the retail sector. GEA makes a point of highlighting its strict production philosophy, as Adriano details: “All products are entirely manufactured in Italy. Our raw material suppliers are well known to us and so we can assure our customers of our product's quality, from start to finish.”

Also in Milan is Copyr who supply a range of professional products. Founded in 1961, the organisation became part of the Spanish Zelnova Zeltia group in 2006, itself part of the Spanish pharmaceuticals company, PharmaMar.

Not to be overlooked, but to the west of Milan and based in Turin is yet another family firm, ORMA run by the father and son team of Francesco and Salvatore Mangogna. They, likewise, produce a range of pest control products with emphasis on aerosols and air purification products.



Brother and sister team at INDIA – Debora and Giovanni Cazzaro



At the B.L. Group, chairman Giovanni Bazzocchi (left) with export sales director, Stefano Scarponi



Husband and wife team at OSD Group, Paolo Gaibotti and Daniela Pedrazzi



At GEA, Adriano Braghieri works alongside his father, Giuseppe, who founded the company



And equipment manufacturers too....

The family link also extends to the manufacturers of spraying equipment.

How this equipment is used differs from the UK norm. Visit any Italian pest control exhibition and you are struck by the size of the machines on display.

Unlike the UK, Italian pest control companies cover vector control, treatment of rubbish areas, ornamental trees and green care – uses we would consider more the preserve of the landscape and amenity market – so larger equipment is required.

Market leader is Tifone who started out in 1955, initially with agricultural type machines but have expanded into public health with a range of hydraulic, electrostatic, ULV and thermal fogging sprayers.

In 1958 another sprayer manufacturer began, Martignani. Claudio Martignani was fascinated by all things mechanical, a trait Claudio acquired from his father, Angelo, who owned a bicycle and motorbike hiring and repair shop.

But from bikes and then Porsche diesel tractors, Claudio took the business in another direction as he recognised the benefits of using pneumatic ULV sprayers, resulting from a joint initiative with expert Dutch plant pathologists dating back to 1946. In 1981 the company was the first in Europe to introduce electrostatic spraying systems. Today Martignani mist blowers are



Stefano Martignani, son of founder, Claudio

widely used in Italy and in over 70 countries worldwide. Founder's son and now managing director, Stefano Martignani explains: "Today 80% of our sales go to the agricultural market and 20% to public health. Pick-up vehicle mounted ULV sprayers and thermal foggers along with electrostatic back pack sprayers are our main public health products with sales in Europe (mainly Italy, France and Spain) plus North Africa and the Middle & Far East."

The other key player in the machinery market is Spray Team. Founded in 1995 by



Mauro Bergamini, son of founder Gianni

brothers Gianni and Fabrizio Bergamini with associate Dino Mazzacurati, it too is based in the same northern Italian area near Ferrara.

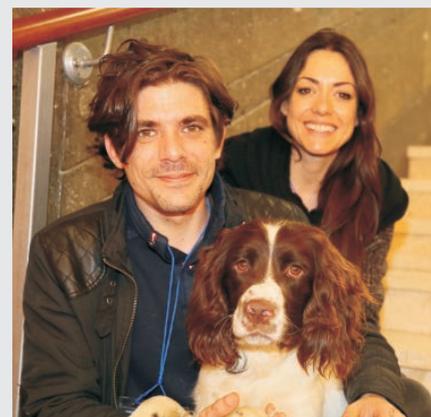
Spray Team manufacturers both agricultural and public health atomizer sprayers. Roughly half their sales go to the Italian market with the balance sold internationally. "Turkey, Morocco, France, Romania and Bulgaria are significant markets for us now," explains sales director, Mauro Bergamini, the son of Gianni, who is carrying on the family tradition.

Certified to detect bed bugs in Italy

Whilst in Rome it was a pleasure to meet the team from the company Dog Bed Bugs. The use of bed bug detection dogs in Italy has not taken-off as much as it has in other European countries. At present, there are only three teams offering this service – in Rome, Turin and Milan. But Milan-based Dog Bed Bugs, owned by Matteo Lanciano and Ita Galasso, is the one and only certified unit.

Having previously worked for Colkim, Matteo has plenty of experience in the industry and trained two of his own dogs (Nena and Megan) to act as bed bug detection dogs, but neither was officially certified. So, accompanied by his partner, Ita Galasso, they took the brave step, not to mention big investment, of coming to England to gain certification for themselves and to acquire a specially selected and trained English springer spaniel, Alfie.

The pair spent over a month training with the National Association of Security Dog Users (NASDU) based in Surrey. Interestingly, NASDU not only trains bed bug detection dogs but also rodent detector dogs. Matteo and Ita plan to return to NASDU in the near future to acquire a second dog to work alongside Alfie.



From Dog Bed Bugs: Matteo Lanciano and Ita Galasso with Alfie



Continuity in leadership

A further factor that undoubtedly leads to the 'family feel' within ANID is its chief executive, Sergio Urizio, who has been at the helm since the association began 21 years ago.

This continuity of leadership certainly provides stability, although Sergio is far too modest to claim the credit. This stability is also reflected in the ANID membership. Of the 40 initial company members at the launch of ANID, 30 are still members.

Looking to the future, Sergio sees a

buoyant market for pest control servicing in Italy. Not only has the general demand for pest control services grown, but last year the Italian Government, in line with EU legislation, altered the law regarding private tendering for public contracts. This makes the tendering process easier, allowing for greater participation by more pest control companies.

But this expansion poses problems of its own – one of standards. Responding to the growing market, new players, often coming from the cleaning sector who bolt on pest control activities, are entering the servicing market. But as with several other European countries, there are no barriers to entry.

Sergio estimates there are roughly 900 pest control companies in Italy, of these around 350 are ANID members.

“At our last executive board meeting we passed applications from a further 25 potential members,” explains Sergio, “but there are concerns generally regarding the



Sergio Urizio has led the Association since its inception, 21 years ago

training of technicians. We currently have 120 EN 166636 Certified companies, of these 68 are CEPA Certified too. Being CEPA Certified adds value, but our aim is to achieve a 'trained professional' category – only these professionals will be able to access the full range of biocides in Europe.”



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The future for rodenticides in Italy

As ever in the EU the implementation of regulation varies by country.

When it comes to rodenticides all countries have signed up to the principle of reducing the environmental impact of anticoagulant rodenticide use.

Readers will recall that the background to all this is also an EU-wide understanding that, if there were alternatives, then none of the anticoagulants would be approved for outdoor use.

So it was very interesting to hear a presentation at this ANID conference detailing the approach in Italy.

In the UK our industry's response, at the request of the regulator, the Health & Safety Executive, has been to develop a voluntary solution, namely the UK Rodenticide Stewardship Regime, which has just produced its second annual report (see page 10-11 in this issue).

In Italy it's fair to say things have progressed more slowly.

Last year at the Italian Disinfestando event there was plenty of discussion on this subject. In Rome this year it returned, but now with more clarity.

Whilst no evidence of secondary wildlife poisoning has been found in Italy (maybe

because no-one has looked for it hard enough?) eight risk mitigation measures have now been identified.

Some, such as changes to pack size and the reductions in product concentration following the toxic to reproduction classification i.e. adding the exploding heart symbol on professional strength products, are common across Europe.

One big difference between the UK and Italy is the adoption of three user types as a means of reducing the risks associated with rodenticide use.

Type of user

Three different categories of users have been identified at EU level. These are specified in the most recent approvals for the eight anticoagulant active substances which were granted for seven years from 26 July 2017 (see **Pest 52**: August & September 2017).

Maristella Rubbiani from the Istituto Superiore di Sanità (ISS), Rome explained what these three groups, with their Italian definitions, are:

- **General public** (what we would call amateurs) – people who use rodenticides occasionally in a private capacity;
- **Professionals** – people who use rodenticides in the course of their work, for example in agriculture, animal husbandry, retailers and in food manufacture, packaging, warehousing, distribution and sale;
- **Trained professionals** – people who use biocides in the course of their work as pest managers/controllers.

Italy is not unique in following this classification of user types. The Republic of Ireland, for example, has also adopted this



Maristella Rubbiani from ISS

approach. In Ireland this led to the introduction, from 1 January 2018, of a licensing requirement for pest management professionals to clearly identify those who are trained professionals.

Spot the difference

So what is the difference between a professional and a trained professional?

Maristella explains: "In Italy there are three activities that only trained professionals are allowed to do. Firstly, the use of bait in covered and protected bait points, rather than bait stations, so burrow baiting for example. Ordinary professionals must use bait stations. Secondly, use bait in sewers and at landfill sites i.e. in more 'open areas' Ordinary professionals can only use baits indoors and around the perimeter of buildings. And, thirdly, use the technique of permanent baiting. There is however a proviso. Trained professionals must not use products containing brodifacoum in permanent baiting programmes."



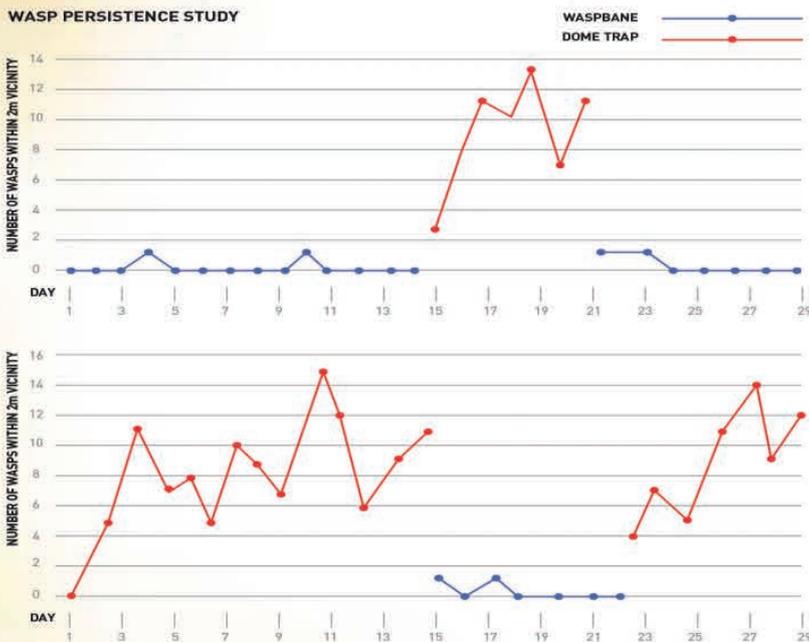
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NPTA takes to the road in the snow

On what must have been one of the coldest and snowiest day this year, a valiant band of professional pest controllers made it to the Midlands version of the National Pest Technicians Association (NPTA) 'On the road day' held on 1 March just outside Nottingham.

With the country gripped in the icy blast of the 'Beast from the East', around 50 NPTA members made their way to Ruddington Grange Golf Club.

Despite the awful weather, only about 10 delegates cried-off, many of those coming from Lincolnshire, which was most badly hit by the snow. Unfortunately this included, NPTA chairman, Adam Hawley. To accommodate some of the speakers and exhibitors who were travelling the greatest distances, the programme was altered to let them have an early get-away. Even so it took Killgerm's Nigel Batten a total of nine hours to get home, the last five of which he covered just 22 miles!

Opening the day, NPTA chief executive, John Davison updated the group on some of the latest developments at NPTA. In particular he advised them that the decision had been taken at the Annual General meeting in January, that, from 1 April 2019 it would be compulsory for all members to be a signed-up member of a Continuous Professional Development (CPD) scheme.

Science to the fore

Within the programme there were two excellent, but quite scientific, presentations. In the first, bird expert Nigel Batten unravelled the science and practice of using hand-held lasers as part of a bird management programme.

Sharon Hughes from BASF gave a background talk covering the features and so benefits of using cholecalciferol as a rodenticide, as mentioned by Clive Base in his resistance presentation at PPC Live (see page 17). This active ingredient is already on sale in several BASF rodenticide products in Australia & New Zealand and work is in hand to bring it to the UK, but Sharon would not be drawn as to when!

Good practice

With the emphasis on more practical matters, Richard Mosely from Bayer discussed insect pest management.

He outlined how long and how much a new active took to develop and made the plea that pest controllers really must protect those products currently available – using different formulations and rotating actives being a good way forward, as is good hygiene and physical control measures – again sentiments covered by Clive Boase in this issue. Richard made the offer that if pest controllers needed technical advice, feel free to ring one of the Bayer team.

Practical pest controllers love getting to grips with the kit they routinely use, so the opportunity was given in three 'hands-on' sessions. Delegates in the audience always have their own personal tried-and-tested practical suggestions to put forward, as was the case here, particularly in the Chris Woodard session where he covered the use



Chris Woodard's demonstration prompted several suggestions from the audience



Clearfirst Services pick up tips from Bayer

of various traps. Iain Turner discussed the use of hand-held sprayers and posed the audience some pithy practical questions. He alluded to the possibility of the establishment of a stewardship scheme, similar to the rodenticides one, to cover insecticides. Not to be outdone, Nigel Batten demonstrated the use of bird spikes and netting.



It was a snowy welcome for Dave Hazzard of Terminator Pest Control



Braving the snow L-R: Killgerm's Brady Hudson with Sharon Hughes and Helen Ainsworth from BASF



The NPTA organisers. From left: Julie Gillies, John Davison and Steve Hallam

Laser solution covers all angles

The massive distribution sheds that have sprung up around the UK provide ideal homes for breeding seagulls. The Unipart distribution centre in Oxfordshire is not only massive but its particular roof construction meant it presented some very specific challenges. Consequently it was under siege until Richard Stewart of PestPro Bird Solutions was able to come up with a high tech answer.

Unipart, the automotive parts manufacturer and distributor's distribution centre in Cowley, Oxfordshire is an impressive building measuring in excess of 78,000 square metres, with an asbestos concrete multi-pitched roof measuring some 290m x 270m. This was ideal territory for nesting herring gulls and black-backed gulls.

The challenge

The birds were well established and able to breed, undisturbed on the huge expanse of fragile roof, where access is severely restricted due to the brittle nature of the non-load supporting roof sheeting.

The fragile roof meant that bird control

netting was cost prohibitive, requiring huge disruption inside the distribution centre to allow for the installation of fall arrest netting and the use of crawling boards outside.

Nest and egg removal was being practiced during the nesting season, but with limited success again because of the access restrictions. Nest and egg removal is also a reactive solution rather than a preventative solution, and we all know that prevention is better than cure when it comes to pest control.

The solution

Richard Stewart of PestPro Bird Solutions based in Reading is a



trained Agrilaser Autonomic installer. His knowledge and training in the use of bird control lasers enabled him to confidently propose Autonomic as a solution to his client.

Unipart provided mains power 240V Commando outdoor sockets and PestPro, with the support and guidance of PestFix installed four lasers in October 2017.



The fragile multi-pitched asbestos concrete roof meant bird management was pretty challenging



Four Agrilaser Autonomic units were needed because of the scale of the roof to be protected

Whilst one laser can cover the entire roof, because of the sheer scale of the property, the time taken to cover it fully would potentially move the birds around the roof, rather than off it altogether. The solution was to install four lasers operating simultaneously, each in a designated zone so that the pest birds would be lifted by the laser activity and given nowhere to settle, instead being forced to flee the roof.

The lasers are now running 24/7. The constant disruption to the gulls provided instant results with pest birds relocating practically overnight.

Happy to offer support

Matt England, director of PestFix says: "Richard approached us for support on the bid process. Together we surveyed the Unipart site and proposed the use of the four Autonomic 200 units sited on a neighbouring seven storey office building that overlooks the distribution centre roof.

"We were also able to train Richard's technicians on site during the commissioning

phase so that they can maintain and fine-tune the laser system to give optimal ongoing performance. It is a fantastic example of how we can work in partnership with pest controllers who have received Agrilaser training and we look forward to our next project with Richard and his team."

Richard Stewart said: "I like dealing with PestFix as they always try to sort out any queries we have. It's good to work with a friendly group of people. We had already purchased a hand-held laser unit from PestFix a couple of years ago so we had a good idea about its effectiveness as a tool in the realm of bird control.

"I worked with Matt England on the Unipart contract. We carried out a survey and demo at Unipart for the facilities manager, Tina Arnison, to show what the lasers were capable of, which brought us the order for the four autonomic units.

"When it came to the installation, the PestFix team spent all day on site with us and you could tell that they wanted all concerned to



Richard Stewart of PestPro Bird Solutions

have a very good understanding of both the practical and theoretical application of the laser systems.

"All in all a very positive experience for both myself and my staff who have now gained yet another skill," Richard concluded.



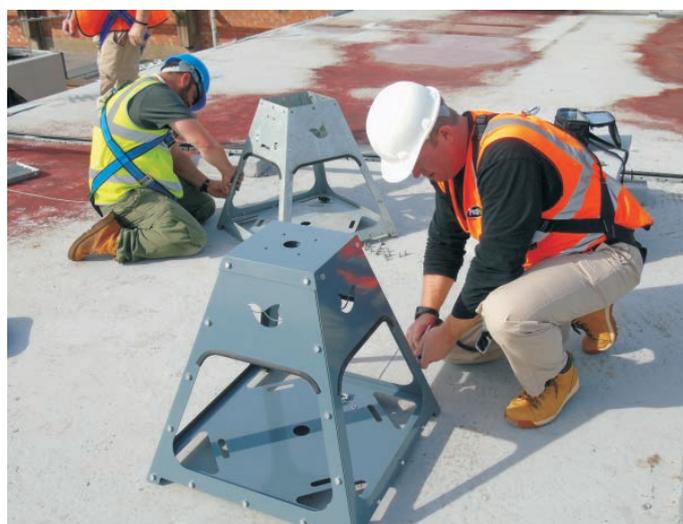
Four Agrilaser Autonomic units were needed because of the scale of the roof to be protected



Ready to switch on



Assembly begins. Matt England, left, offers some practical assistance



Taking shape. Two stands almost complete



Solar powered fly trap

Another simple idea is the Flies-No-More solar fly trap from Kness, as demonstrated by Nick Fugate who was over from the USA. This small unit features a solar powered LED light attractant and a banana-scented glue board designed to attract flies and other insects. It is visually appealing, made of durable moulded plastic and easy to inspect. What might look like a bit of a gimmick in the professional sector, it's ideal to sell as an add-on to domestic customers.

www.kness.com

The Scout has landed!



Having seen this product, developed by Nattaro Labs from Sweden, at exhibitions overseas it's good to be able to report it is now available in the UK from Edialux.

Nattaro Scout is a bed bug detection trap which contains a unique blend of bed bug pheromones simulating bed bug aggregation. The trap is designed as an early detector of a bed bug infestation, or to monitor results following treatment.

The design of the monitor makes it easy to fit on the floor, under the bed frame or inside the bed, between the mattress and the base. The pheromone lure fits neatly into the trap which mimics a normal sized bed bug harbourage. The construction of the pit fall trap is such that, once the bed bugs have climbed in, they are unable to climb out.

www.edialux.co.uk

New products unveiled at PPC Live

Beefy blocker added to the range

The two Daniels at Metex (Hopkins, below left, and Bamford) have made an impression on the market with their stainless steel Ratwall rodent blocker.

Now they have added the larger, more robust Rat Blocker – the TX11 from Nordisk Innovation, previously sold in the UK by Vermend.

The Rat Blocker works by blocking off sewage pipe access to rats from the outside, whilst still permitting the free flow of water and waste from the inside.

It fits snugly into the sewer pipe and locks securely into place. Its double-steel flap opens when fluids need to flow freely into the sewer, but until then, the flap remains closed and prohibits anything from entering.

The TX11 is the market leading Rat Blocker, having sold more than 90,000 units, explains Metex. It is constructed from marine grade stainless steel, comes in sizes up to 350mm diameter and can be installed from street level.



www.ratwall.co.uk

Small is beautiful – the sachet, not Tony!

When doing a small insect spraying job, how often do you get left with unused spray? First, it's a waste of spray but more importantly, what do you do with the left-over spray?



Lodi has come up with a very bright idea. They have introduced a 2g soluble sachet for the company's Digraim C40 WP cypermethrin-based wettable powder. When diluted, this makes 1 litre of spray. So, not only easy to carry, but no waste too.

Already available in 10g sachets as well as in 500g containers, this residual insecticide can be used against a variety of crawling insects.

www.lodi-uk.com

Search service launched

Launched at PPC Live was a new online search engine which, explains founder Nathan Webster (right), aims to offer UK pest controllers a fresh approach to promoting their business online. He explains that only one pest control business will be listed for each separate post code to avoid competition with any another company in the same area. There is an annual fee for those wishing to be listed and, claims the organiser, applicants will be strictly screened and checked to ensure they possess all the correct and necessary credentials including, training, qualifications, company insurance and trade association memberships.



www.pestcontrolin.co.uk

Retract when no pests

Safety Screens has come up with a novel addition to its range of door and window products. Retract-a-Screen is an insect screen door perfectly suited to light industrial or domestic environments.

When not in use, the insect screen retracts with ease, storing discreetly into a purpose-built cassette. At the bottom of the frame, the caterpillar track slides out with the door and will 'self-return' if kicked out of position, whilst a bottom rail just 4mm high reduces the tripping hazard.



www.safetyscreens.co.uk

Feel the force

This oil-in-water emulsion from Lodi UK contains cypermethrin and tetramethrin and can be used indoors for a range of crawling and flying insects.

Digrain Force EW is a high strength concentrate, sold in a 250ml bottle. 25ml makes five litres of spray.



www.lodi-uk.com

Demi Diamond gets an upgrade



The popular insect monitoring station, AF Demi Diamond from Killgerm has received an upgrade in its design allowing it to be placed securely in more areas. Killgerm explains that the benefit of the new design is it can now be easily hung on a wide range of clothes rails and garment racks including all standard domestic rails. The original fixing hole has been retained which allows the Demi Diamond to be fixed to walls/racking in commercial and food premises. Another hole towards the base has been added to help standard fixing.

www.killgerm.com

HokoEx label extended

Hockley International are pleased to advise that the label for their granular cyromazine larvicide product, HokoEx has been extended to include use in waste management sites.

This means that the product, which explains Hockley, delivers effective control of fly larvae and has been used in animal housing for several years, can now also serve the waste processing industry.

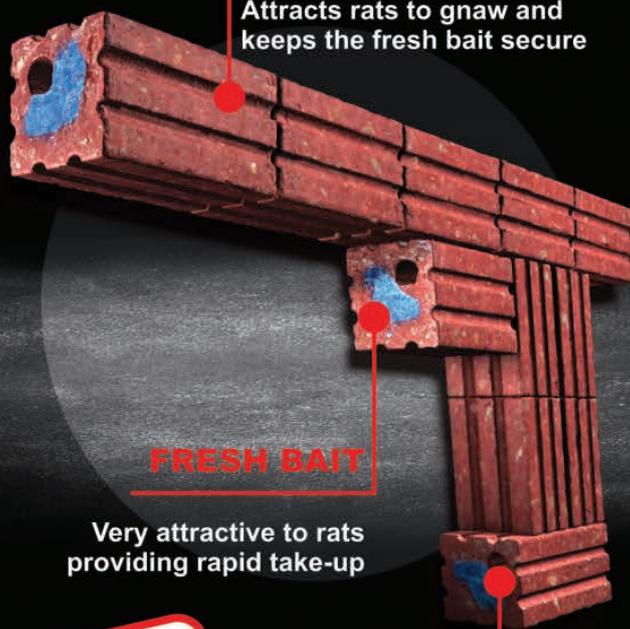


www.hockley.co.uk

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Attracts rats to gnaw and keeps the fresh bait secure



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Very attractive to rats providing rapid take-up

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- Increases consumption without the risk of bait transfer.
- The result: faster and more efficient elimination of rat infestations.

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

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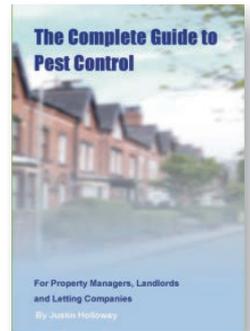
Pest control in let properties

Hats off to Justin Holloway of Prokill Thames West for knuckling down and producing this 84-page guide. It is aimed at property managers, landlords and letting companies who may know little about pests.

It is designed to help these managers navigate the complex relationship between landlord and tenant when faced with a pest problem. It covers pest control and the law and helps define whose responsibility it is to correct a problem. As to be expected, Justin strongly recommends any treatments to be performed by members of BPCA or NPTA. Using his experience and a range of photos collected over many years, the Guide runs through all the pests likely to be encountered – from rodents to birds.

Contact Justin Holloway if you would like a copy.

justin.holloway@prokill.co.uk



Check out rodenticide resistance

Definitely worth a look-see is the Rodenticide Resistance Action Committee (RRAC) website. This shows where Norway rat resistance has already been recorded in the UK – as illustrated in the screen grab below. This will help readers clearly identify where there are gaps in the data and where their tail samples are sought, as mentioned on page 18.

Also shown on the site is where resistance has been identified in several other European countries.



There certainly seems to be a problem, for example in The Netherlands, France and Denmark. Data is also shown for house mice in some countries.

The site also includes useful information on anticoagulant resistance generally.

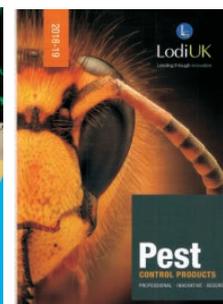
<http://guide.rrac.info>

Second crop of catalogues

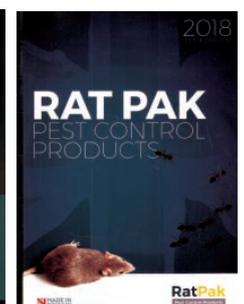
The second and final flurry of distributors' catalogues means those below are now available. If you haven't got yours just request one.



www.barrettineEnv.co.uk



www.lodi-uk.com



www.ratpak.co.uk



Tell us about your van

Hot on the heels of the first ever Van of the Year competition organised at this year's PPC Live event, **Pest** magazine is running an editorial feature on what makes a good van and we want to hear from you.

- What make and model do you favour and why?
- Do you customise your own interior or have you found something 'off the shelf' that fits the bill perfectly.
- How do you finance the van – buy outright or lease?
- Are you stuck with a van that's not ideal because the boss chose it for you?

- If you could make one change to your van what would it be?
- Is your van branded with your company name or plain so it remains discrete?
- How has your van changed over the years? Is it better or worse today than five, or even 10 years ago?
- Do you use a large vehicle or is a small car-sized one better?

Please send your experiences to the editor.

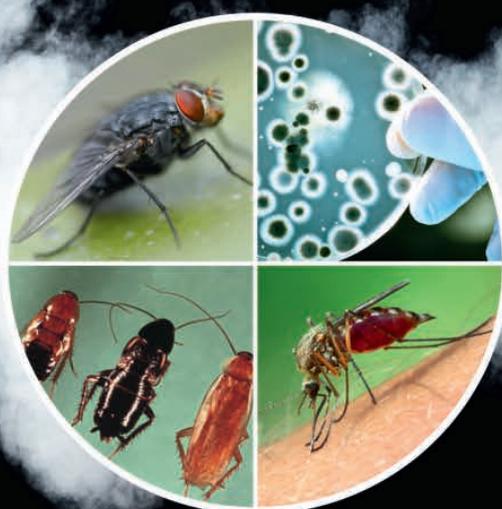
Email: editor@pestmagazine.co.uk

Oh, and while you're at it why not also send us a picture of 'You & Your Van!'



Gary Leek of Pestforce, East Yorkshire winner of the PPC Live Van of the Year competition

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Ghost ants



Pharaoh ants



Argentine ants

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Tel: 00800 1214 9451 www.environmentalscience.bayer.co.uk

Diary dates

4-6 June 2018

2018 Global Summit of Pest Management Services for Food Safety and Public Health

Hotel Cascais Mireagem, Av.Marginal n.8554, 2754-536 Cascais, Portugal
<http://gs18.npmapestworld.org/>

12-14 June 2018

13th Fumigants & Pheromones Conference

Indianapolis, Indiana, USA
<https://store.insectslimited.com/fumigants-pheromones-conference-registration>

26-29 September 2018

FAOPMA Pest Summit

Shenzhen Convention & Exhibition Center, Shenzhen, China
<http://www.cPCA.cn/thems/index/1.html?acid=153>

23-26 October 2018

PestWorld 2018

Walt Disney World Swan and Dolphin Hotels, Orlando, Florida FL, 32830
www.pestworld2018.org/

7 November 2018

PestTech 2018

Arena MK
 Stadium Way, Bletchley, Milton Keynes MK1 1ST
<http://npta.org.uk/pesttech/>

Need to claim CPD

If you're collecting Continuing Professional Development (CPD) points as a member of BASIS PROMPT then the number you need to claim the two points available for reading **Pest** magazine throughout 2018 is: **PC/62676/18/g**



Pest Test 56

Now also
online

BASIS has made two PROMPT CPD points available if you can demonstrate that you have improved your knowledge, understanding and technical know-how by passing the **Pest Test**.

So, read through our articles on Stewardship going well, but more to deliver (pages 10-11) and Pesticide resistance: Should we be concerned (pages 15-17) in this issue of **Pest** and answer the questions below. Try to answer them all in one sitting and without referring back to the articles.

SEND COMPLETED QUESTIONS to: **Pest** Magazine, Foxhill, Stanford on Soar, Loughborough, Leicestershire LE12 5PZ.

We will mark your **Pest Test** and, if all answers are correct, we will enter the results onto your PROMPT record held by BASIS.

- 1** What percentage of gamekeepers now hold a rodenticide stewardship certificate?

<input type="checkbox"/> a) 10%	<input type="checkbox"/> c) 37%
<input type="checkbox"/> b) 27%	<input type="checkbox"/> d) 60%
- 2** What percentage of pest controllers are continuing to use permanent baiting?

<input type="checkbox"/> a) 98%	<input type="checkbox"/> c) 41%
<input type="checkbox"/> b) 53%	<input type="checkbox"/> d) 37%
- 3** What is the latest date that the Government will fully evaluate the UK Rodenticide Stewardship Regime?

<input type="checkbox"/> a) 2020	<input type="checkbox"/> c) 2030
<input type="checkbox"/> b) 2025	<input type="checkbox"/> d) 2035
- 4** What proportion of houseflies on UK farms were already resistant to natural pyrethrins in 1993?

<input type="checkbox"/> a) A half	<input type="checkbox"/> c) A quarter
<input type="checkbox"/> b) Two thirds	<input type="checkbox"/> d) A third
- 5** Which of the following resistance mechanisms confers a very high level of resistance?

<input type="checkbox"/> a) Detoxification	<input type="checkbox"/> c) Penetration
<input type="checkbox"/> b) Mutated target site	<input type="checkbox"/> d) Behavioural resistance
- 6** What does CRISPR stand for?

<input type="checkbox"/> a) Clever Regularly Interspaced Short Palindromic Repeats	<input type="checkbox"/> c) Clustered Regularly Interspaced Short Palindromic Repeats
<input type="checkbox"/> b) Clever Regularly Interspaced Slight Palindromic Repeats	<input type="checkbox"/> d) Clustered Regular Interim Short Palindromic Repeats

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