pest

The independent UK pest management magazine

Do 25ppm rodenticides have a place?

Issue 62
April & May 2019

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Pest is published six times a year

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Aims

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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Pest is published by Foxhill Publishing Limited
Registered in England No: 6737319
Printed by PPS Print, www.pps-print.com

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Contents

Pest control or pest management?

Is it time to change the way we refer to our industry? We think it is. We need to move away from taking about 'control' and start talking about 'management'. This is nothing to do with white collar snobbery, nor trying to sound important. It is actually a much better description of what this industry does. So much of a pest professional's work is now about monitoring and prevention and, yes, of course, stepping in to deal with a problem, when needed.

The management word is particularly relevant for the food industry, as the seminar organised by the Society of Food Hygiene and Technology (see page 35) clearly demonstrated. But it's not easy. We've all got used to referring to PCOs, as if this was a real word. By using the outdated 'controller' we are reinforcing the perception that all we do is kill things. Politically this is bad news and it's something we know the Confederation of European Pest Management Associations (CEPA) is working to change. We are not just biocide users, poisoning pests, but service providers who solve problems and play a huge role in major EU initiatives such as healthy cities.

If there is any doubt about how the industry has professionalised then look no further than the two major European shows that took place this spring – PestEx and Disinfestando. Both receive extensive coverage in this issue and, of course, there's the relatively new British Pest Management Awards (BPMAs) – see page 21 – evidence that the 'M' word is starting to creep in? Enjoy...

Interpreting the news at www.pestmagazine.co.uk

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Scott gets promoted

The British Pest Control Association (BPCA) has promoted Scott Johnstone to the position of marketing and communications manager. Scott who has been with BPCA for 2.5 years is now responsible for developing and managing marketing and communication activities for the Association. BPCA chief executive, Ian Andrew, said: "We are delighted to be able to promote internally for this role. Scott has already proved he is a significant asset to BPCA and I am certain he will take our marketing and communications to exciting new places".

Scott has a background in developing marketing and communications for commercial and not-for-profit organisations. He holds a first-class degree from Aberystwyth University and is a certified digital copywriter.

PelGar's new look unveiled at PestEx

PelGar International's new brand identity is crisp and clean and made a real statement on the PelGar stand at PestEx.

The company says it delivers a co-ordinated, consistent, yet flexible style, which can be applied across the product ranges and labelling requirements for PelGar brands around the world. Anna Wilson-Barnes marketing manager, pictured above, with the company's Nic Blaszkowicz says it employs a strong use of colour to identify products in the distinct sectors of rodent control, insect control and plant protection. It builds on the existing palette used across the rodenticide products and retains the dark blue of the existing amateur use insecticides, introducing a new 'sunset yellow' for professional-only insecticides and saving the green for its flagship range of pyrethrum-based plant protection products.

John joins new BASIS membership committee

BASIS PROMPT member John Sage pictured below with Michele Wiliams on the BASIS PROMPT stand at PestEx, has been elected by his fellow professional register members to represent them on the newly formed BASIS committee for professional register members. After attending his first meeting in March he said he is looking forward to helping reinforce the message that more training leads to more skills – and more business.

John has been involved in professional pest management for more than 35 years. He is one of nine members to have been voted onto the new committee, alongside representatives from farming, crop protection and commercial horticulture.

The committee's task is to steer membership strategy and improve service to current members. Top of the agenda for John is continuing to spread the message about why being a member of a continuing professional development (CPD) scheme is so important. He said: "It is way more than just collecting points, it's about what the points represent, which is a recognised indication that the professional is competent and up-to-date with changes in legislation and pest management practice."

Jonathan Wade lifetime achievement award

Dr Jonathan (Jo) Wade has been awarded the 2019 British Pest Management Lifetime Achievement Award. He colleted his trophy from TV natural history presenter, Mike Dilger at the British Pest Management Awards ceremony on 20 March (see page 21).

Jo finished his career as technical director at PelGar International, retiring at the end of last year.

Having study zoology at Liverpool University his early career was in academia, first as a PhD student and then as a post-doctoral researcher at the Liverpool School of Tropical Medicine.

After a spell as a government adviser in Libya and then as head of pest control in Dubai, he became technical manager for ICI public health, which later became Zeneca. In 1995 he jumped shipped from the big multinational environment to help set-up PelGar taking on the role of technical director.

New backer for CRRU

The Campaign for Responsible Rodenticide Use (CRRU) has a new member company, contributing financially and providing expertise to the UK Rodenticide Stewardship Regime. It is Quimunsa, based in Spain. CRRU chairman Dr Alan Buckle said: "Additional sources of funding are most welcome to help cover what is a major and annually recurring investment in stewardship by rodenticide manufacturers and distributors. Clearly, Quimunsa will add their own insights to help maximise the regime's impetus, effectiveness and, ultimately, its success."

New leader at Pelsis

It was good to see the new man at the top at Pelsis out and about at PestEx. Unlike his predecessor, who rarely made it to events, Andrew Milner, who joined the company as CEO on 4 March, seemed keen to find out more about our industry.

Andrew graduated in mechanical engineering from Southampton University in 1984. He has spent the past 12 years working in the aircraft and aerospace industry, most recently as CEO of Northern Aerospace. He also holds an MBA from the Cranfield School of Management.

Andrew said: "I'm looking forward to leading the Pelsis Group and continuing to drive the growth of the business globally, particularly at such an exciting time in the Group's history."

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Protecting the stars

One of the North East's leading pest management companies, Cobra Pest Control has been helping to protect the actors and film sets of the hit British crime drama series Vera. Based on novels of the same name, written by crime writer Ann Cleeves, it features Brenda Blethyn OBE as DCI Vera Stanhope.

Paul Gowland MD said. "A lot of the filming is done around the old docks in North Tyneside and with often hundreds of cast and crew around, there's plenty of opportunity for rats to pick up discarded food waste, especially around the main fictitious HQ of Northumberland police in Wallsend.

"We don't get to meet any of the stars but we can see our workplace on TV and know what goes on behind the scenes!"

Pest Trader and Sentomol join up

Pest Trader and Sentomol have joined forces. David Loughlin, founder of Sentomol said: "I believe by combining our technical and commercial skills we can offer a stronger portfolio to the market at a time when modern monitoring and trapping technology is moving forward rapidly."

Rob Fryatt, founder of Pest Trader added: "David and I have worked together in a variety of roles over many years. It became clear this was the optimum way forward to continue to develop the Pest Trader brand and portfolio. In addition, it gives me the opportunity to take a first step back."

David Loughlin has assumed leadership of the combined operation. Sentomol will continue to market its full range to the horticulture, forestry and animal health markets under the Sentomol brand.

read more on the web WWW

David Loughlin, left and Rob Fryatt

Killgerm sell travel business

As ***Pest*** went to press news came in that Killgerm had divested its travel agency business Travelwise Group to TPW S.A.S. trading as Travel Planet. The travel business, which many in the pest control sector may not be aware of, had been part of the Killgerm Group since 1993. Managing director Rupert Broome commented: "The sale will allow us to focus 100% of our future efforts on our manufacturing and supply activities within the pest control sector."

London Network for Pest Solutions recognised

Working, and maybe also living, in Central London is no mean feat – especially if not paid a 'City boy' packet. Believing strongly that his staff are recognised and rewarded appropriately for the hard work they do, Paul Cooper, managing director of London Network for Pest Solutions, was more than delighted to be accredited as a Living Wage Employer.

To gain this plaudit, organisations are audited by the Living Wage Foundation and need to prove they pay their staff, as a minimum, the 'real living wage'. This is over and above the national living wage, which for London is £8.22 per hour, whereas the real living wage is £10.55 per hour.

In the UK there are only six pest control companies, including London Network, accredited as paying the real living wage by the Living Wage Foundation. In the London region there are only two, the other being Combat Pest Control.

As Paul explains: "The pest control industry is a highly competitive business and we have seen over the years that staff typically get paid lower than in similar manual trades industries. For far too long the industry has been cutting prices, not at the expense of profit, but by not paying a decent wage to the staff who carry out the day to day work."

Paul Cooper (third from right) with his team from London Network for Pest Solutions proudly displaying their Living Wage Employer plague

Rentokil results impress

Rentokil Initial's 2018 results revealed a performance in excess of the company's own medium term financial targets. Operating profit was up by 13.3% to £329.3 million. As a result shares rose by 8%. Revenue was up 13.2% to £2,455m.

The pest control sector now accounts for almost a third (63%) of ongoing revenue and a third (67%) of ongoing operating profit. In 2018 revenue and operating profit in pest control grew by 12.6% and 9.9% respectively. Organic revenue rose by 4.8% with growth through company acquisition of 7.8%. According to the financial report, Rentokil's strategy in pest control is to strengthen its position as global leaders through increased organic growth and by establishing stronger market positions, particularly in growth and emerging markets as well as through digital expertise, innovation and acquisitions.

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New association in Italy

Up until this year Italy has been one of the few major European countries with a single trade association. However all that has changed. A new association AIDPI has been set up to rival ANID with, say the founders, a much bigger focus on training the next generation of pest professionals. Reading between the lines, the feeling was that the old association had become too set in its ways. AIDPI already has 54 members and is targeting 70 or 80 by the year end. The President Vincenzo Colamartino, pictured centre, was one of the founder members of the old association. He was at PestEx with director Pasquale Massara, left, and his nephew and translator, Andrea Calamartino to promote the new association. AIDPI is also working with Italian training specialist Singetech, run by Sergio Urizio, the organisers of Disinfestando.

And the wining name is... Tyke!

The competition on the BASIS PROMPT stand at PestEx to come up with a name for the PROMPT mascot dog has been won by PROMPT member Tom Brind. Tom, who works for Oxford Direct Services based in Oxford, suggested Tyke. There were 33 entries but Tyke was judged to be the most suitable. Tom won a PROMPT Tyke look-a-like cuddly toy for his efforts.

Winner Tom Brind with his look-a-like cuddly tyke

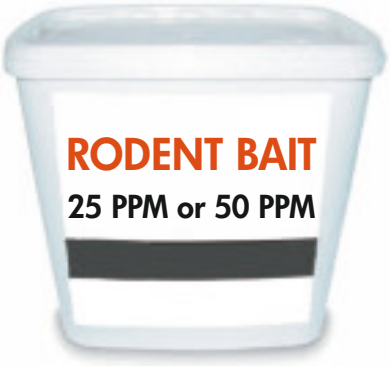
The great escape

Despite having been in the pest business for over ten years, technician Adrian Blofield from Bury St Edmunds-based Pest Solution, was somewhat taken aback to see what a rat had achieved in its bid to escape. It had literally gnawed its way through a U-PVC window frame!

The frame was part of a reasonably new bungalow, located in a very rural setting, not far from Mildenhall in Suffolk. As Adrian explained: "The window frame was in a utility room which wasn't much used. The householder was aware they had rats outside the house, so can only think this one somehow got inside and then got trapped. I inspected outside and there was evidence of rodent burrows, which I've since appropriately treated." Problem solved.

How low should you go?

PestEx saw the launch of a new 25 parts per million (ppm) rodenticide from Syngenta, as well as advance notification of ones from BASF, Babolna Bio and Bell; all coming soon. These will join a growing selection of lower concentration products already on the market. But, where do these new formulations fit in the pest professional's armoury? *Pest* associate editor, Helen Riby, used PestEx as an opportunity to get advice from the major manufacturers.



Just a few short years ago, choosing a rodenticide was pretty easy. Single feeds could only be used indoors, first generation anticoagulants had a place but you had to think about resistance and, by and large, second generation multi-feeds did a good job. How times change. And, despite some grumblings from the dinosaurs in our industry, many of those changes have actually been for the better – see panel below.

The most recent change has been the reclassification of all anticoagulant rodenticides as toxic to reproduction requiring the exploding heart symbol and the words 'May harm the unborn child' to appear on all rodenticide packs containing 30 ppm or more active substance. Whilst the science behind this is somewhat dubious, the fact is the reclassification has taken place and there's nothing we can do about it.

However, in the event, conversations at PestEx suggest that it may actually have been a good development, providing pest professionals with more product choice and greater flexibility. In turn this means greater opportunity to show their expertise to customers by selecting the best and 'greenest' product for the circumstances they are faced with.

First out of the blocks was PelGar International. The company chose to introduce a full range of 25 ppm products using all three of the active substances in its range – the multi-feeds, difenacoum and bromadialone, along with the single feed, brodifacoum. These sit alongside the traditional 50 ppm lines and have been available now for around a year. PelGar says that the products are selling well to servicing companies that have taken the trouble to explain to their customers the benefits of using 'lower strength' products in sensitive areas.

Technical manager at PelGar, Alex Wade, explained that all the 25 ppm products

Rodenticide changes have been good for professionals

The introduction of the UK Rodenticide Stewardship Regime may, on the surface, look as if it has been about restricting what you as a pest professional can do but, look again. Without stewardship it is extremely likely many rodenticides would already have been removed from the market. It is stewardship that has allowed the Health & Safety Executive to feel able to renew product authorisations. Not that rodenticides are out of the woods, they are still under threat but stewardship has saved them for now.

It also means only trained professionals have access to professional rodenticide products. Ok, there are still problems policing Internet suppliers and the like but, the steps taken so far are definitely in the right direction.

Stewardship has also given professionals the option of using the single feed rodenticides in places they were not allowed to use them before, such as around buildings to tackle resistance.

The limits introduced on the pack sizes means amateurs now have to pay a lot more to get their hands on large quantities of product. Also, the reclassification as 'toxic to reproduction' means amateurs can only buy lower strength products.

The introduction of these lower concentration products gives true professionals more scope to demonstrate their expertise by explaining to customers which products they have decided to use, when and why.

The requirement by both UK trade associations that members show they are up-to-date by being part of a professional register and collecting Continuing Professional Development (CPD) points is also a positive change underlining professionalism in the industry.

All of these things mean that, increasingly, professionals will come to dominate the pest management servicing sector.

Alex Wade from PelGar International

János Daru from Bábolna Bio

from PelGar have been trialled in the UK against rats and mice to provide the efficacy data required for product authorisation.

Greater flexibility

Alex said: "Having two strengths of products allows professionals to tackle rodent problems in different ways depending on the circumstances they are faced with. For sensitive areas such as domestic situations or areas accessible to the public, the 25 ppm products may often be the best choice. Whilst in areas that are more controllable, such as industrial sites or at sites where resistance is suspected, the 50 ppm products fit best.

"As the figures in the table below show, a 250g rat would need to eat twice as much bait at the 25 ppm strength.

"Whilst these numbers, 18g and 11g, respectively, for difenacoum and bromadialone, might look high, in fact, unless there's high food competition getting 18g into a rat over a few days shouldn't be that difficult given that the rat will eat around 30g of food a day. So using a half strength bait does not mean it will take twice as long to kill a rat. It will only take a day or so longer for it to consume a lethal dose."

On the plus side if a non-target animal such as a pet dog or cat eats the lower strength bait it will need to eat twice as much to ingest a lethal dose.

Hungary-based Bábolna Bio also has a wide range of below 30 ppm anticoagulant rodenticide formulations as managing director János Daru explained: "Of course, the main goal for authorising these products was to supply the amateur market, where our company has very important sales in many countries in the EU.

"We had expected that, in certain circumstances, (e.g. in the food industry) rodent control with products classified as reprotoxic might be refused, so there would be a demand for these products also from trained professionals. Accordingly, our company does keep stocks of these products. Sales experience over the past year, however, shows that there has been no significant sales to trained professionals for the time being.

"Regarding the UK market, our UK distributor indicated last year that they would like to introduce a below 30 ppm product containing brodifacoum, so we have started to register our extruded rodenticide wax block with 25 ppm brodifacoum. That is now ongoing.

"We do not share the opinion of those who say that only brodifacoum or flocumafen products are suitable to use at lower concentrations. We have several bromadialone-based formulations and all the tests in the laboratory and in the field confirmed that, if the palatability of the bait is excellent, the result is also excellent. One independent laboratory used our Protect Revolution (27 ppm bromadiolone pellet + appetising gel) on resistant rats and the result was a 100 % kill. This just goes to show that one of the main factors for successful rodent control is not the active substance itself, but the quality of the bait."

No call yet for 25 ppm

Lodi UK has taken a different approach. The company has obtained authorisations for 25 ppm products for its amateur range and could therefore introduce a 25 ppm professional range reasonably quickly but has no intentions of launching anything at present. Lodi's Roger Simpson suggested that when customers call in a pest professional they want them to be using full strength products not something that the customer could buy themselves at B&Q.

Somewhere in between are Bell Laboratories, BASF, Syngenta and Unichem (who manufacture the Ratimor products). All four have decided to only introduce lower concentration products containing single feed actives so that's brodifacoum and, for BASF, flocumafen. Of course, Bayer's range of Rodilon products based on the single feed active, difethialone from Liphatech have always contained 25 ppm active substance and have not been impacted by the reclassification.

The Deadline Products team agree that products based on the multi-feed actives are best used professionally at 50 ppm. The company has therefore not introduced any professional lower strength products. However Zapi, who own the difenacoum active in the Romax brand, sold by Barrettine does have a 25 ppm product.

Consultant and ***Pest*** Technical Advisory Board member, John Charlton, says the 25 ppm products should be used with caution, especially where resistance is suspected. "For example we know resistance is widespread in mice in London so using lower strength products is unlikely to do much to control a mouse problem in the capital."

Grams to kill a 250g rat

Note These data are averages compiled from various independent studies on laboratory strain susceptible rats and should be used as an indicator and not an absolute.

Active substance	Rat LD50 mg/kg	Active substance ppm	Grams to kill a 250g rat	Active substance ppm	Grams to kill a 250g rat
Difenacoum	1.8	50	9	25	18
Bromadialone	1.1	50	5.6	25	11
Difethialone	0.56	25	5.6	25	5.6
Brodifacoum	0.4	50	2	25	4
Flocoumafen	0.25	50	1.25	25	2.5

Source: PelGar International

For the single feed products all the technical evidence is that they will work well at the lower concentration.

New TalonM from Syngenta here now

Syngenta launched its first lower concentration product for the UK at PestEx. The company's technical manager, Dr Kai Sievert told us: "Extensive trials have shown that 25 ppm Talon products, such as the new TalonM, can achieve the essential 100% efficacy of rodent control in practical situations. Whilst the intake of active with the consumption of 25 ppm baits is less it is still amply sufficient to achieve the required level of efficacy."

The 25 ppm maize-grain based TalonM is the first 25 ppm Syngenta brodifacoum rodenticide. Further versions of the Talon Soft paste, wax block and pellet are planned for the future. None of the reduced strength formulations will carry the 'May damage the unborn child' warning, and thus they give operators the option to select the most appropriate bait to their specific situation, he pointed out.

Kai continued: "One of the crucial aspects with reduced strength baits is palatability, to ensure sufficient consumption of active to deliver a single feed kill of rats, or more typically a single-night kill with mice as they feed multiple times from the food source. All the Talon products have excellent palatability. In trials with TalonM, for example, bait consumption by rats was an average 75% of their existing laboratory diet and 80% with mice. Palatability at these levels resulted in 100% control of rodents that consumed the 25 ppm bait.

"The high palatability of TalonM is likely to be especially useful in situations where rodents have plentiful alternative food sources, and particularly in rural situations with other grain options. Talon Soft will still likely be the first choice in domestic or urban situations where PCO's want a quick, clean and easy-to-use solution."

BASF's Storm Ultra & Storm Ultra Secure coming soon

BASF's Sharon Hughes also highlighted the importance of palatability in her presentation at PestEx. BASF has two new products on the horizon; Storm Ultra & Storm Ultra Secure. Both are based on 25 ppm flocumafen and have been authorised for the UK. Storm Ultra Secure will be launched later in the year in the UK with the smaller (5g) Storm Ultra also available in other EU markets.

She said that the efficacy of a bait is down to a combination of the potency of the active substance, the acceptance of the bait as a food source by the rodent i.e. its palatability, the amount of competitor food available and bait placement. "To be authorised all baits must have an efficacy of at least 90% but baits may have different acceptance depending on the competitor food the rodents are used to," she added.

Storm Ultra is a 5g block and Storm Ultra Secure a 25g securable block. Both contain an innovative BASF binder with superior performance compared to wax. This allows a greater percentage of ingredients recognised by the rodents as a food source to be included in the bait. BASF trials show that this makes Storm Ultra at least twice as palatable as leading competitor wax blocks. Effectively Storm Ultra combines the palatability of a soft block with the durability of a hard block.

Resistance management

Resistance management is also an important consideration as Sharon Hughes explains: "For bromadialone and to a lesser extent difenacoum baits, there is evidence of resistance in both rats and mice and the incidence of resistance is growing. It seems that the more we look for resistant rodents, the more we find, so the full extent of resistance remains unknown. As there are already problems with difenacoum and bromadialone baits when the active substance content is 50 ppm, there are concerns that a reduction to less than 30 ppm may result in even further selection in favour of anticoagulant resistant rodents."

There is currently no resistance to the single feed products so those based on flocoumafen, and brodifacoum at the lower 25 ppm concentration are expected to give 100% control against resistant rodents just as the difethialone products do.

Syngenta's Kai Severt points out that UK trials have shown that Talon consumption at 25 ppm delivers sufficient brodifacoum to control rodents resistant to other first and second generation anticoagulants, as an essential resistance breaking strategy.

BASF palatability trials clearly demonstrated the effectiveness of the new Storm Ultra 25 ppm products. The table, right, summarises the results of laboratory efficacy studies using different strains of Brown rats (*R. norvegicus*). Rats were offered the choice between a control non-toxic diet (rodent laboratory diet) and Storm Ultra. The amounts eaten were recorded. Palatability is the amount of Storm Ultra consumed divided by the amount of control diet consumed. A value greater than 1 indicates that Storm Ultra was preferred. For reference: The palatability of most block baits in the market ranges in between 0.5 and 1.5.

Use with care

The single feed products even at lower concentration are more toxic to non-target species than the multi-feeds so following the stewardship code to minimise the risk to non-target animals, the single feed products should not be the first choice for every job.

Dr Kai Severt from Syngenta

Sharon Hughes from BASF

Looking to the future if the effectiveness of the 25 ppm single feed rodenticides is so good what might happen to the 50 ppm versions when next reviewed by the regulators? The chances are they might not be re-approved. It makes sense, why use twice the active if it's not needed!

But what about the multi-feed actives? Does the fact that some manufacturers have chosen to introduce professional products containing lower concentrations of difenacoum and bromadialone mean they will also face the chop come re-authorisation time? Let's hope science has a say with the regulators because with these actives the case is no way near as clear cut. In some cases they will do a good job but, in others, probably not.

Having a choice is good news for pest professionals as long as they understand the options and apply their professional expertise to assess the situations they are faced with.

Selecting the rodenticide which does the job but has the least environmental and non-target impact makes a lot of sense – our goal should be as much as necessary, as little as possible.

Efficacy in rat laboratory trials (choice tests, *Rattus norvegicus*)

Strain	Resistance status	Sex	Palatability Storm Ultra Secure 25 g block	Palatability Storm Ultra 5g block	Mortality (%)
Wistar	Susceptible	male female	3.11 11.30	3.35 17.78	100 100
Welsh	Resistant to FGARs	male female	2.16 3.77	2.18 8.33	100 100
Hampshire	Tolerant to difenacoum & bromadiolone	male female	2.41 7.82	4.03 8.08	100 100
Berkshire	Resistant to difenacoum & bromadiolone	male female	2.00 3.38	2.40 4.24	100 100

Source: BASF

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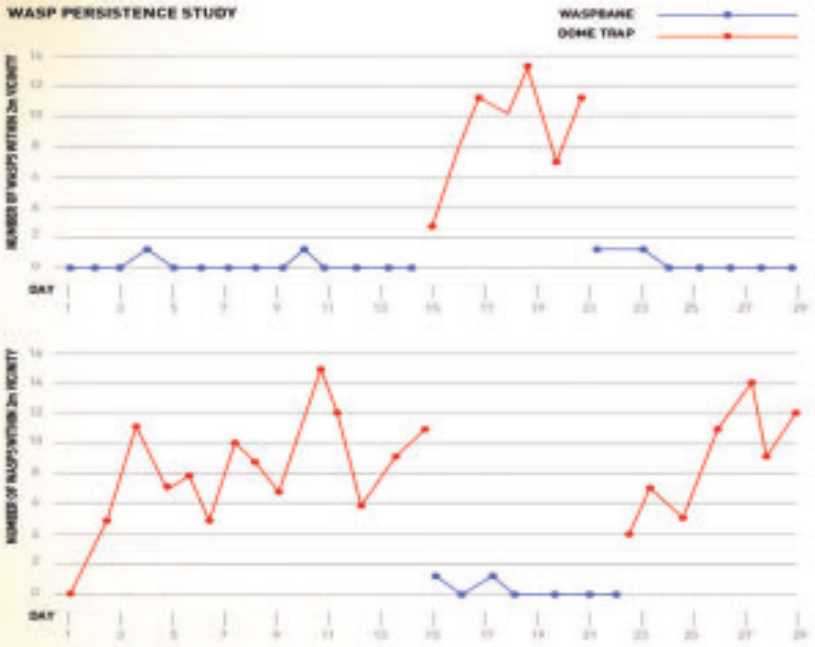

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A birds' eye view

Pest control – or in this case bird management – certainly gets you into some weird and wonderful places. On this occasion Abate Pest Management scaled the heights when they were called in to replace bird netting on the summit of an East Anglian water tower.

Based in Morley St Botolph in Norfolk, Abate was working alongside specialist water industry contractors, Stonbury. Stonbury's brief was the refurbishment of Dennington Water Tower, located in East Suffolk and built in 1953. Water towers are very visible landmarks in East Anglia and owe their presence to the flatness of the land – they are constructed at height to provide flow and pressure to the water.

Standing at nearly 200ft high, working at height is obviously a clear consideration, so Health & Safety plays a big part. Abate was awarded the project due to their bird proofing specialisms and because they are both SafeContractor and CHAS accredited.


© Adrian Cable

(CHAS is the Contractors Health and Safety Assessment Scheme).

Abate managing director, Jon Blake takes up the story: "Even before the survey began a full health and safety induction was given.

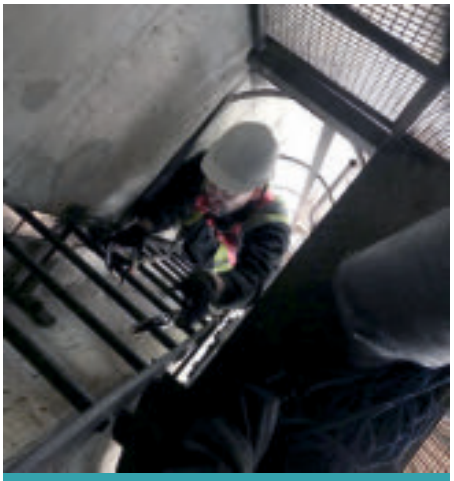
"Like any project where we work at height, safety measures such as double lanyard clipping to ladders automatically takes place."

The water tower project included a complete guano clean of the outer void, which is the area between the outer wall and the huge water tank. When the cleaning was complete all of the wires and fixings were replaced and new finer gauge netting was installed.

"As the tower is fitted with communication masts, we also installed zips at access points to allow engineers to unzip the netting rather than just cutting into it. This will reduce additional maintenance in the future," Jon explained.

For those readers interested in the technicalities, all the wire rope installed was 2mm 7/7 (49 strand) in stainless steel with M6 stainless steel barrel strainers to support and tension the ropes. The ropes were crimped together using copper or aluminium ferrules and all the fixings used to guide wire ropes along with any caddy clips were made from stainless steel.

The netting was 19mm x 19mm polyethylene made sparrow netting with UV stabilised 12/6 twine manufactured by Network.



Safety is paramount. Double lanyard clipping to all ladders is a must

Zips were installed to give engineers access to the communications masts on the tower

Excellence in cockroach baiting

Knowledge is power

At PestEx 2019, one of the technical seminars was presented by Steve Broadbent from Ensystex based in Australia. His presentation covering cockroach behaviour and its implications for baiting was excellent – so much so that when question time arrived, one delegate said his was the best presentation he had ever heard at such an event. Praise indeed.

In discussion with Steve, he said he had already presented the very same material in an article in the leading Australian magazine *Professional Pest Manager*. Other than with a few tweaks to convert the content to the situation in the UK, *Pest* has pleasure in reproducing this article.

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

Whilst many think of cockroach baiting as a relatively recent strategy, following the introduction of the first gel bait in the late 1990s, baiting of cockroaches in fact dates back more than a century. The first commercial bait was sold in 1896 in the UK and USA, and consisted of phosphorus added to a sweetened flour paste. Prior to that, DIY baits consisting of one part plaster of Paris and three to four parts of flour were widely used.

Since then, a range of active constituents have been employed in cockroach baits, including:

- imidacloprid;
- fipronil;
- indoxacarb;
- dinotefuran;
- boric acid*;
- chlorpyrifos*;
- hydramethylnon*;
- abamectin*.

A range of sophisticated bait formulations is also now available, for example in the Australian market, these include the now ubiquitous gel baits, a liquid micro- encapsulated bait*, granular baits* and a dry flowable magnetic powder bait*.

** Not registered in the UK*

© Dr Reiner Pospischil

Male German cockroaches enjoying a gel bait

Compared to residual spray formulations, cockroach baits are generally less toxic and leave fewer residues, since they are applied in low doses directly to cockroach harbourages or areas of known cockroach activity. Consequently, they tend to be favoured in sensitive environments such as zoos, child-care facilities, electrical/computer areas and food premises.

What do baits need to attract cockroaches?

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

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

Carbohydrates are mostly consumed during the first week after hatching, i.e. during the first stadium (instar), with lesser amounts required in each subsequent stadium. In contrast, protein is required during all life-stages, though in a lower proportion. When cockroaches were reared in an environment where they were able to self-select the nutrients required, they grew optimally by selecting the requisite nutrients for each nymphal development stage.

Specific nutrient learning

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

The consequences of this are most important in the development of a cockroach bait, since it becomes vital to have a food source within the bait that provides a complete and balanced diet containing all the nutrients required by the cockroaches in order to optimise the success of the baiting regime.

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

Attractants and stimulants

Attractant and feeding stimulants are also important to draw the cockroaches to the bait and then to ensure they consume larger amounts of the bait and achieve increased uptake of the toxicant. Other additives are added to prolong the lifespan and retain moisture content in the baits.

A food item can act as both an attractant and a feeding stimulant, but this is rarely the case. A substance that is attractive may not necessarily stimulate feeding. Similarly, an item that is a feeding stimulant may not attract cockroaches to a bait. Attractants function by drawing cockroaches towards the bait. Laboratory studies have shown that a high quality bait formulation can even draw cockroaches from upwind of the bait, away from corners and edges of walls, to a bait placed 25-30cm away.

Steve Broadbent from Ensystex, Australia speaking at PestEx 2019

In contrast, feeding stimulants are required to induce and promote increased consumption of baits. Understandably the amount of the bait eaten at a single feed is very important in a control programme, particularly when we consider secondary kill effects. This determines if sufficient toxicant is consumed to both kill the cockroach and have toxicant available for secondary transfer. This is because cockroaches that consume larger amounts of bait defecate and regurgitate more substances containing the toxicant.


Applying many small drops at multiple locations provides greater control efficacy than simply placing a few large drops or smears of bait

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

Feeding stimulants are often species specific, though mixtures of these substances frequently show synergistic effects. This means that, by carefully combining different stimulants, we can greatly improve the performance of a cockroach bait.

Bait stations make a difference too

The use of carefully designed bait stations can also improve bait performance. German cockroaches, unlike Norway rats, are often attracted to novel objects introduced into their environment. When the complexity of the introduced object is increased, for example by using a station with several entrances, the cockroaches spend more time exploring the station and are most attracted to it when a food source is added.

We are all aware that cockroaches are largely nocturnal. Typically, they depart their daytime harbourage sites to forage for food and water and to search for sexual partners in the early evening. In more natural environments, cockroach activity tends to peak around two to four hours after sunset. In our man-made environments, these 'normal' circadian rhythms will change to suit the situation. So, for example, if we have a restaurant that is open until late in the evening, with lights blazing, it will be around two hours after the lights go out that activity will peak.

Most behavioural studies have been performed using the German cockroach (*Blattella germanica*) as the study model. Unless stated otherwise in this article, when referring to cockroaches, this will be the specific test species.


© Clive Boase

Gel baits should be placed as close as possible to cockroach harbourages

Given the simple nerve ganglion structure that represents the cockroach brain, it is perhaps surprising to realise the complexity of the cockroaches' activities and the 'knowledge' they develop with respect to their environment.

Studies by researchers such as Durier and Rivault, have shown that cockroaches are fully aware of the spatial distribution of food and water in their localised environment. Contrary to the advice often extolled, these studies show that cockroaches do not forage randomly, in fact they are highly efficient in their travels between food and water sources and their harbourages.

Whilst cockroaches live in an 'aggregate' (a loose social structure), they forage in their environment individually, using knowledge that they each 'learn' for themselves. They do this through a process known as path integration, employing their prior exposure to various odours and visual cues from earlier foraging excursions, to develop their own navigation system.

Path integration can be considered as a system whereby a cockroach continuously updates its knowledge base, with the direction and distance to a new feature in its harbourage arena, be that food, water or shelter. The recollection of a favourable food source at a specific location is usually linked to olfactory and visual cues, such as food odours and objects around the food source.

In a new environment, when stimuli from food odours and learned visual cues are absent, German cockroaches explore in a random pattern that covers all accessible surfaces in the surrounding environment. Once they find a preferred food source, they will integrate its position into their navigational database, linking it to the learned visual and olfactory cues and then relating its position in terms of both direction and distance to their harbourage.

Shortest route

On future foraging expeditions, they will then travel directly, more or less taking the shortest route, to the memorised location. This greatly enhances their foraging efficiency. Cockroaches tend to place a greater emphasis on olfactory cues when seeking out food sources and visual cues when returning to their harbourages.

The foraging activity and behaviour of cockroaches is determined by the age of the cockroach. Cockroaches at different instars forage differently. For example, early instar nymphs forage in a similar manner throughout those stadia, whilst fifth instar nymphs show the path integration patterns and evolve more efficient foraging behaviour.

It appears that when they first hatch, first and second instar nymphs rarely leave their harbourages. Only as they develop into later instars, do they venture further afield. By the fifth instar they are highly active in their foraging and path integration.

This is an important aspect to note from the perspective of cockroach baiting. In naturally occurring cockroach populations, around 60% of the population consists of nymphs and this is largely unaffected by population size. If a baiting programme is to be successful, it is vital that we take out all the nymphal stages, particularly the first and second instars, that might not be targeted by a standard gel baiting programme.

Given that cockroaches establish these intricate networks to connect their food and water sources with their harbourage through this path integration process, we need to review how our baits will be perceived.

Bait placement

Durier and Rivault also showed that cockroaches would feed on a gel bait in preference to a prior food source, when it was placed in a new location, at about the same distance from their harbourage as their current feeding source. In this study it was 600mm away from the harbourage, but near a visual landmark known to the cockroaches.

More notably, when the gel bait was used to replace the original food source at the same location and, also when the gel bait was placed further away than their original food source, the cockroaches largely ignored the gel bait. Thus, location of baits is important regardless of the palatability of the bait.

Clearly when we replace the existing food with a gel bait, the cockroaches note a discrepancy and bait avoidance is the likely result. Presumably they identified this localised change as a potential threat and changed their behaviour to explore and forage for a more familiar food source that matched their stored information.

The logical conclusion from this is that baits should be placed as close as possible to cockroach harbourages.

In trials first instars will eat gel bait but in the field they rarely leave their harbourage meaning early instars might not be targeted by a standard gel baiting programme

Many drops in multiple locations

Indeed, various studies have demonstrated that gel baits applied in many small drops at multiple locations provide greater control efficacy than simply placing a few large drops or smears of bait.

One clear reason for needing to place several baits is to avoid aggression behaviour amongst cockroaches. Dominant cockroaches will aggressively protect a favoured food source and attack early life-stage cockroaches, or less vigorous individuals, to defend 'their' food source. Whilst these dominant individuals will later die from the toxin; due to the previously detailed path integration process, those cockroaches that were chased away, are unlikely to return, as they will have added that experience to their knowledge base and stay clear of the area in the future.

Baiting programmes can therefore be best enhanced by using monitoring traps to identify the location of cockroach harbourages and then placing baits near these clearly identified locations.

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Not coming home... yet!

One regular visitor to PestEx not seen this year was Gary Journeaux, managing director of Competitive Pest Services (CPS) from Sydney, Australia. Recruiting good staff seems to be as tricky in Australia as it is here – so Gary makes regular visits to PestEx, and also PPC Live, to dangle the carrot of Oz weather and an adventure down-under to attract qualified staff.

His tactic certainly seems to have worked, as two of his last crop of recruits like it so much in Australia they are staying on for another season. One has even enlisted a pest control friend to join them!

We asked how they felt about their experiences and what they found different about pest control down-under. Here are their replies.

First, Tom Mitchell, who comes from Hereford and previously worked with Caerphilly-based Europest: "I have enjoyed a great six months working with CPS in Sydney. Some of the highlights have included a boat cruise around Sydney harbour, where we were able to meet the rest of the staff. Also the Christmas party gave me the chance to experience the Sydney nightlife!

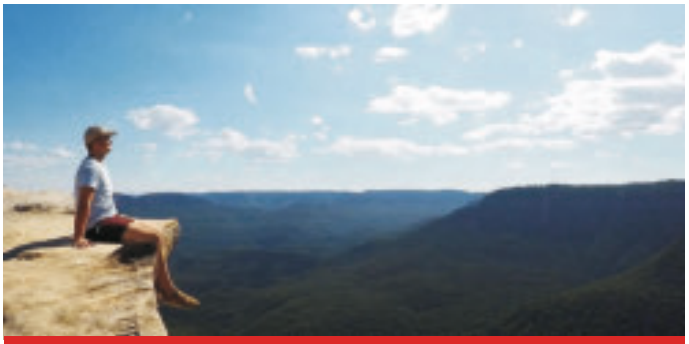
"Obviously there are several pests here in Australia that we don't get back in the UK, including funnel web spiders, Australian cockroaches and possums! These present different challenges, especially the various different deadly spiders. The majority of the work is spraying customers' properties with residual insecticide, both internally and externally, to ensure insects can't enter their homes.

Out sightseeing together at the Sydney Opera House. Eddie Taylor (left) with Tom Mitchell

"I would like to thank Gary for this fantastic opportunity and I look forward to completing another six months with CPS later this year. In the meantime I'll be travelling Australia and seeing what else this country has to offer! If anyone reading this has the chance to come to Australia and work for CPS, my advice would be to do it!"

Also staying on in Australia is Eddie Taylor. Originally from Birmingham, Eddie previously worked for JG Pest Control: "I have spent the last six months working in and around the Sydney area. We started with the boat party in Sydney harbour to meet and greet everyone in the company. From there the time has really flown by. I have assisted on termite work and gained further experience in pest control on both residential and commercial sites. With most customers more than willing to have a chat and ask questions about the UK, it creates a really friendly work environment.

"Away from work I've visited Australia Zoo, famous for its crocodiles, north of Brisbane on Queensland's Sunshine coast. As well as more beaches than I'd probably ever been to in my life, coming from a city lifestyle back home. Overall this has been a great life experience for me and I would urge anyone, if they get the chance, to get out here and soak up some of the sun for themselves."



Don't jump! Tom enjoys the view and soaks up the rays in the Blue Mountains, north of Sydney

RatMat for foxes?

Having read in *Pest 60:* December 2018 & January 2019 about the very recently launched electrically charged RatMat, John Bryant from the Humane Urban Wildlife Deterrence, got in touch with *Pest* as he could see opportunities for its use against foxes.

John Bryant explains the problem: "Every year, between July and September, I am alerted to hyped-up fox cubs that are getting under cars. The first case I had was in Epsom where the police had been called about concerns that a vandal had a vendetta against certain houses in the street. This was because brake pipes and electric looms were being 'slashed' under cars. The police sat in a bedroom for a week watching the street all night. The damage continued but the police didn't see any suspicious activity, only foxes running along the road. They brought some of the damaged parts to me and I informed them that the damage was caused by animals' teeth, namely foxes."

"Another recent case involved a private mini-bus that was parked on the owner's drive. The owner complained that the bus had been attacked by foxes several times costing him £6,000 in repairs. His solution was to wrap a wooden picket fence all round the bus at night. This worked well – although he later reported that the foxes were biting through the wooden palings."

Damage can not only be expensive but is also a danger to motorists. One of John's clients found herself without brakes on the M25. John's usual advice is to squirt citrus dog or cat repellent under the vehicle, or, if the car seems to be the only one targeted to move it to another street to break the habit. Unfortunately the damage sometimes continues.

RatMat to the rescue?

So, could RatMat from Hammer Technologies, be the answer? Since its launch to the professional pest control market by Killgerm, RatMat devleloper Toby Bateson has realised that, as well as rodents, the tiles will probably be effective in repelling other animals in many situations.

Pest put John in touch with Toby to assess the fox deterrent suggestion.

Toby explains: "The RatMat works like an electric fence on the floor. The interlocking tiles deliver a repellent, non-lethal shock to any animal that walks on it, unless they are wearing shoes. As the tiles can be driven on, they would make an excellent solution to the juvenile urban fox problem. The car could be parked on the tiles, deterring foxes from the underside.

"We are proud that it is a long-lasting and humane method which does not involve poisons or traps. The tiles connect together quickly and easily, like jigsaw pieces, to give a hard-wearing surface. An energiser similar to those used for electric fences is connected and you're ready. It can be used indoors and outdoors and a solar powered battery unit will soon be available for off-grid use," added Toby.

RatMat developer, Toby Bateson holding one of the RatMat tiles on display at PestEx

As John Bryant explains: "The RatMat also fits well with Defra's policy on urban foxes. This states: 'Previous attempts to kill urban foxes to achieve a sustained population reduction have not been successful in the long-term because of the mobility of foxes and their ability to produce offspring in large numbers; territories made vacant by culling resident foxes are rapidly colonised by new individuals. The most effective strategies to resolve fox problems are non-lethal methods, focusing on preventative and deterrent strategies.'

Although both John and Toby agree that RatMat is a potentially humane, safe and effective solution to juvenile urban foxes, further work is underway to evaluate its use.

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BRITISH Pest Management AWARDS

The results of the second ever British Pest Management Awards were announced and trophies presented at the end of day one of PestEx on 20 March. The venue was the exhibition technical theatre where master of ceremonies, TV natural history presenter, Mike Dilger, did a sterling job battling against the noise and keeping the event flowing.

The awards certainly seem to be gaining popularity but there were mixed feelings about the suitability of the venue. Tagging the ceremony onto a PestEx perhaps also undersells the concept as, whilst BPCA has been the driving force, the idea has always been inclusive.

Judges are drawn from across the industry, Kevin Higgins from BPCA, Steve Hallam from NPTA, Anne Godfrey from CIEH, Henry Mott from CEPA and our own Frances McKim from ***Pest.***

The winner of the Sole Trader of the Year award 2019 was Phil Martin from PGM & Sons Pest Control. Unfortunately Phil was unable to attend the award ceremony.

The Lifetime Achievement award went to Jo Wade, see page 5.

There were two entries that were highly commended:

Paul Bates, Cleankill Pest Control in the Unsung Hero award.

Manchester City Council Pest Control Service in the Local Authority of the Year award.

Team of the Year award 2019 – Lancaster City Council, Unbugged. Award presented by Frances McKim

Small Company of the Year award 2019 – Abate, presented by Henry Mott

Local Authority of the Year award 2019 – Lancaster City Council Unbugged. Award presented by Kevin Higgins

Company of the Year award 2019 – Cleankill Pest Control. Award presented by Henry Mott

Community Initiative of the Year award 2019 – Contego, presented by Frances McKim

Innovation of the Year award 2019 – NBC Environmental, presented by Frances McKim

Unsung Hero award 2019 – Ken Vigar, Safeguard Pest Control and Environmental Services, presented by Kevin Higgins

Young Technician of the Year award 2019 – George Rickwood, Rokill Pest Control Services, presented by Kevin Higgins

PestEx 2019: Connections made & renewed

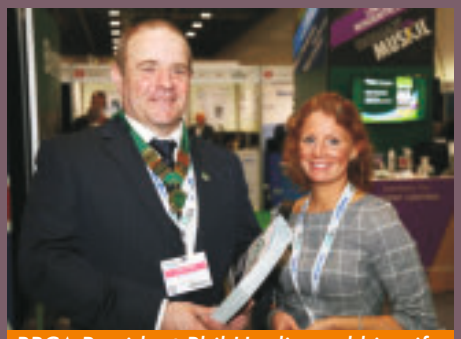
Whether you were new to PestEx or, like us, old-timers, the 2019 Britsh Pest Control Association (BPCA) event held on 20 & 21 March at London's ExCeL was a great place to make new connections and to catch-up with old acquaintances. As the UK's flagship event, PestEx delivered in spades.

The exhibition is the heart of the event and it felt busy; at times, almost too busy. Some of the aisles between the stands were more like queues. Whilst us Brits are pretty adept at, what our American cousins describe as, 'waiting in line', if you wanted to make progress, especially on day 1, it was often difficult! Not that the exhibitors were complaining. The 'queues' gave them opportunity to engage with visitors and, dare we say it, even sell them something. Many of the seminars were well attended too, see out report on pages 25-27.

For the record the official attendance numbers were 104 exhibition stands, two fewer than in 2017. The total number of visitors was recorded at 2,383 with well over 300 of them attending on both days. To this must be added the 408 exhibitors bringing the grand total to 2,791. The figures for 2017 were 1,845 visitors and 498 exhibitors.

For the first time in many years PestEx was organised in-house. The BPCA organising team should be happy. It was a job well done.

read more on the web www



BPCA President Phil Haplin and his wife greeted visitors at the entrance

On the Rat Pak stand James Bright, left, from BB Wear with David Helgesen

The BASF team: Helen Ainsworth, Gavin Wood and Sharon Hughes

Octavius Hunt's Jo Scutcher, left, and Luciana Negoe

Renewing old acquatences: Martin Harvey, left, Frances McKim and Dave Nubel

On the Bayer stand, Alan Morris and Ken Black

Bell UK's Shyam Lakhani, second left, was kept busy with plenty of interest in traps as well as rodenticides

Lodi's Roger Simpson – a rare moment to sit down

The ExCeL explosive detector dog meets the BASIS PROMPT mascot

Lots to see, plenty of contacts to be made and old aquaintences renewed. There were also plenty of new products on show. Take a look at what we spotted on pages 28 & 29 in this issue

Hockley's newest broad-spectrum insecticide, Mostyn PTP 15 ULV, sparked some interest

Collecting Continuing Professional Development (CPD) points from BASIS PROMPT's Chrissie Webster

One man (Merlin's Adam Juson) and his dog catch up with the news

Plenty on offer for UK pesties as the team from The London Network for Pest Solutions discovered

1env's Richard Lunn explains the benefits of Syngenta's new TalonM

As ever the Killgerm team was kept busy with visitors keen to find out what was new

Syngenta's Europe, Africa and Middle East team was out in force for PestEx, underlining the very international nature of this event

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Plenty to learn at PestEx 2019

PestEx 2019 employed the now tried and tested format of two seminar programmes running in parallel, one dedicated to technical topics, the other to business topics.

Spread over the two days there were 23 separate sessions so even the most dedicated seminar attendee needed to be selective. Whilst 23 sessions is still small fry compared to the USA event, PestWorld, it is, in our view, getting a bit unwieldy. Some sessions were extremely popular but others attracted very small audiences and that's a real shame for the presenters who have invested time and effort into their presentations. Perhaps for future years it may be better to limit the number of sessions – less can be more in these situations. Here's a review of the sessions we managed to get to:

Rodent attraction

Rodents are the bread and butter pests for very many pest professionals and with all the changes in when, where and how they can be used, any topic in a seminar programme that mentions rodent control is bound to excite interest.

Unsurprisingly then the rodent-related sessions from: BASF's Sharon Hughes, Paul Charleson representing the National Pest Advisory Panel (NPAP) and Dr Belinda Stuart-Moonlight an expert witness from Moonlight Environmental, all drew a good crowd.

Sharon Hughes may work for one of the big rodenticide manufacturers but with a career in research and development going back to the late 70s she is definitely one of the UK's most knowledgeable rodenticide experts.

Sharon discussed two challenges to successful rodent control, the reclassification of rodenticides as 'toxic to reproduction' and rodenticide resistance. Whilst the reclassification seems not to have raised as many customer concerns as anticipated, a number of rodenticides with lower concentrations of active (and therefore not sporting the words 'May damage the unborn child' on their labels) are now available or arriving imminently, see pages 8-11. BASF's product will be called Storm Ultra. For resistant rodents pest professionals now have fewer restrictions on where they can use the resistance busting single feed rodenticides such as BASF's Storm and Storm Ultra. BASF is also continuing to work to obtain regulatory approval for its new physical action product based on cholecalciferol.

Dr Belinda Stuart-Moonlight's topic was 'Rodent risks: closure and prosecution stories'. She stressed from the outset that closure and prosecution do not necessarily go hand in hand. To enforce a closure of a business there needs to be an imminent risk to health, whilst the decision to prosecute is based on a breach of one of the legal provisions.

A range of diseases carried and transmissible by mice were explored and, both their seriousness and the likelihood of transmission, were assessed. Allergen hazards were considered as well as disease potential. The credibility of risk was then considered along with the ability of the organisms' capacity to survive in the environment.

The decision to close a business is based on the seriousness of an infestation. Belinda described the acid test as being whether mice are being seen during the day. For prosecution to be initiated, culpability is a major consideration. The EHO will be looking for a failure in HACCP, cleanliness, procedures that are in place to manage pest issues, structural maintenance and a failure to protect food from contamination.

Paul Charleson outlined the recently updated and republished NPAP *Rat and Mouse Procedures Manual*, see page 41. Looking back over the ten years since it was first published, Paul's observation was that it was not a question of what has changed, rather what has not changed! When the 2009 version was published there was an assumption that rodent control would involve the use of rodenticides. Not an assumption that can be made now.

Insects of interest

Bed bugs, Asian hornets and cockroaches all featured on day one in the technical arena. The session on cockroach foraging behaviour and biology by Steve Broadbent, Ensystex, was particularly well received, see pages 14-17.

No seminar programme is complete without a session on bed bugs. Dr Jette Knudsen ▶▶▶


Sharon Hughes


Dr Belinda Stuart-Moonlight


Paul Charleson


Steve Broadbent


Dr Jette Knudsen

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from Natarro Labs, Sweden gave an excellent whistle stop tour of bed bug biology and behaviour before going on to link this to the design of the company's Nattaro trap. To attract bed bugs, trap design is key to the dispersal of low concentrations of aggregation pheromones, as is trap placement itself.

Bob Hogg from the Jersey Bee Association explained why he believes that it will not be possible to eradicate the Asian hornet from the island. The first hornet's nest was reported on Jersey in 2017. Last year 14 primary and 37 secondary nests were found. The spread is that fast. It is not just honey bees at risk but all pollinators including bumble bees, wasps and hover flies. Not only are pollinating insects attacked, they are also outcompeted. Bob observed that the hornet has been equally successful on Guernsey as well as Jersey. Guernsey is 24 miles from the French coast. The 'straits' separate Dover from Calais by 22 miles. Once here Bob anticipates that it will populate the whole of England and Wales very quickly, but is of the view that parts of Scotland will be too extreme for it.

Eye-catching talk titles

There were just a handful of people in the business theatre to hear Tony Gee from Pen Test Partners That was a shame because what he had to say was fascinating. With just a little tech knowledge he explained how easy it can be to hack smart homes and businesses. The example Tony used involved first locating all i-kettle homes in London – something he easily demonstrated live on screen. He then went on to outline just how simple it was to use this household item to access the owners wi fi network and via that all their other wi fi connected devices. As someone who uses an i-kettle is likely to have plenty of other i-devices such as i-locks and cloud accessible CCTV he showed how he could potentially burgle the house by disabling all these devices. Sometimes it pays to not be an early adopter!

Over in the technical theatre on day two there were plenty of people to hear Alex Wade from PelGar International address the topic of 'A world without pesticides'

In a media driven world, where pesticides/biocides (and those that use them) are the enemy, it is easy to lose sight of the many benefits they bring. Alex made the case with examples showing the positive impacts on crop yields and the dramatic impact of DDT in reducing the incidence of *Anopheles sp*. mosquitoes (and the malaria associated with them) in the decades following World War 2.

He also pointed out that pests themselves can be environmental disasters. Man has spread pests to many places where they previously did not exist. A good example of this has been the shipping of rats to isolated islands against which ground nesting bird colonies had no defence.

Alex concluded his presentation suggesting that it was irresponsible use of pesticides/biocides that prompted much bad press, not the use *per se*. He called for the continued use of these tools but safeguarded by good practice and professionalism.

Food focus

Two sessions had a food industry focus.

Jeff Wilson from AIB International was celebrating the first 100 years of the organisation known for its food industry auditing and standards setting. Jeff explored the difference between inspections and audits. Often perceived as being interchangeable, they are actually two quite distinct processes. Inspections tend to be a 'snapshot in time' involving physical inspections of the facility and equipment and an observation of working practices. Audits, on the other hand, involve the assessment of documentation and records, analysis of trends and corrective actions that may arise as a result of the gathering of this information.

Following on from Jeff's presentation, Ferenc Varga, food safety manager, Nestlé, explore the ways in which pests (or lack of pests) can be monitored, how the information gathered can be used to assemble the records essential to the audit process that assures food quality.

Ferenc reminded his audience of something that they should know, but frequently forget. Electronic Fly Killers (EFKs) are primarily monitoring tools not control measures. They are a last line of defence warning that something has already gone wrong.

Effective intervention involves recognisng and interpreting the data provided. It needs to be assembled into something that is meaningful and this is where many systems fall down. How do you recognise something that can point to a significant event, against 'background noise'? Being able to do so is essential if you are to detect a fault and correct it.

Monitoring tools are only as good as the way they are employed. They must encompass the site and be installed in positions that will actually encounter the pests they are targeting. The installer needs to recognise that pests do not occur evenly throughout the site but tend to be concentrated in 'patches'. The data generated also should be annotated with other physical data that may be relevant, such as temperature and/or humidity.

In summary a pest monitoring system should be capable of driving corrections to the root causes of infestations, facilitating the journey to a pest free facility.


Bob Hogg


Tony Gee


Alex Wade


Jeff Wilson


Ferenc Varga

Discrete despatch

On the Airgun Training and Education Organisation (ATEO) stand, Dave Mills was demonstrating the newly released Gamo Boxer airgun. Calibre .17 or .22, it comes with a ten shot magazine yet is short and easy to handle as well as collapsible, so it fits into a laptop computer bag. This makes it very discrete to transport when in use for birds, rats or squirrels.

The silencer can be removed and a special tube added, making it ideal for the humane despatch of trapped and caged animals.

Email: dave@ateo.org.uk

Going natural!

Tracked down on the Lodi UK stand were the latest new additions to the company's Organ-X Pro range. Maybe feeling a little chilly is Roger Simpson with Organ-X Pro freeze spray. This is effective against a wide range of flying and crawling insects. Due to the sudden cold the insect's cells burst and the pest dies instantly.

Accompanying Roger is Hannah Smith with Organ-X Pro ready-to-use insect killer. Pesticide-free, it functions solely by physical means. It is also effective in controlling most types of common flying and crawling insects, whilst also being non-staining.

www.lodi-uk.com

Up Mathew's sleeve!

On the Brandenburg stand, Mathew Kaye was understandably looking a bit proud, as the company was showing-off for the very first time their range of LuX light traps, which also come with LED light technology. Whilst on display here, they will not be hitting the market until June.

As using LED technology, the LuX range put sustainability in the spotlight. Mathew says they will significantly reduce CO_2 emissions and energy consumption, whilst not compromising on the rate of fly catch.

www.b-one.com

Flies going 3D

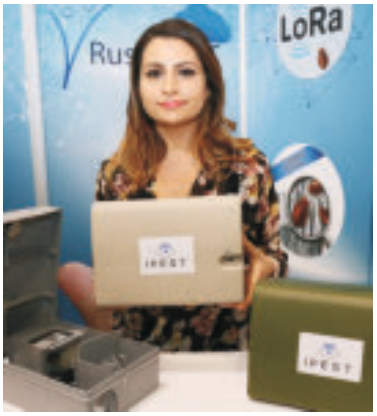
Sticky rolls are nothing new for use for fly control, but now International Pheromone Systems (IPS) has added a new dimension.

Based on their research, it has been discovered that a 3D pattern, with simulated aggregations of flies, provides attractive visual cues.

The product is available as a sticky board but, as Graeme Hartley was demonstrating, the 3D approach also comes in a fly roll. The roll is 25 cm wide and 10 m long. When the exposed part of the roll becomes saturated with flies, a clean sticky surface can be unrolled.

www.internationalpheromone.co.uk

Wireless smart from Russell



Russell IPM was giving all visitors a sneak preview of its iPest Pro digital monitoring system, not yet available to customers, but 'coming soon'. Demonstrated on the stand by Sarah Allo, iPest Pro is a complete IoT cloud-based electronic device providing an end-to-end digital solution for rodents. Utilising LoRaWAN technology, it offers low data consumption coupled with long distance connectivity in both rural and urban locations. With low energy use, battery life can be effective for up to six years. The bait station comes in three different colours, can withstand extreme weather conditions and is accessed via a universal metal key.

www.russellipm.com

Automatic insect recognition

Once again it's technology to the fore. This smart Neuronic App recognises and counts eight species of flying insects captured on UV electronic fly killer glue boards, with both yellow and black backgrounds.

As demonstrated by Bartlomiej Pankowski on the Panko Monitoring Traps stand, just hold your smartphone close to the glue board surface, then the app will automatically detect it and take a photo. Within a few seconds you can read the results of the insects caught on your phone's screen. The results can be exported to Excel and useful reports generated.

www.neuronic.eu

The best things come in threes!

On the Alchochem stand were three brand new and stylish wall-mounted insect control units all using Astron UV-A LED technology.

This LED technology certainly seems the way forward, as other companies also have new products based on it. In brief, LED technology offers lower power consumption, is ecofriendly as there is no mercury, does not require a ballast when connected to the mains and comes with at least a two-year guarantee.

Displaying the 30 LED I-Trap was Ronald van Lierop. Designed to be wall-mounted, it is recommended for use in homes, offices and shops. The UV-A light is directed upwards. Also for wall mounting is the I-Trap 50 LED (seen below left), whereas the third in the trio, the X-Trap 50 LED (seen below right) is discreet and can be ceiling, as well as wall, mounted. It is ideal for shops, restaurants and dry industrial environments.

www.alcochemhygiene.com

A new addition to the Talon range

Syngenta had on their stand the company's latest addition to the Talon range. As proudly displayed by Daniel Lightfoot, the new arrival is TalonM, a kibbled maize rodenticide with brodifacoum as the active substance.

Daniel explained that TalonM offers a real alternative to tackle choosy rodents. For both rats and mice, TalonM proved more attractive and significantly more palatable than their existing diets. With the new 25 ppm inclusion of brodifacoum, the product proved equally effective even where mice were known to be resistant against other first and second generation rodenticides.

It takes just 10 to 15% of a rodent's daily feed intake to consume a lethal dose. This greater efficacy means higher levels of control from a reduced amount of bait used, so minimising exposure to non-target organisms he explained.

www.1env.co.uk

www.killgerm.com


The Northern Echo

Wasp sting killed former soldier working as a pest controller


The Telegraph

News

Ex-soldier died from wasp sting while working as pest controller after suffering allergic attack


YORKSHIRE POST

Pest controller died after being stung while removing wasp nest at Yorkshire army base

Wasp wake-up call for pest professionals

The death from anaphylactic shock of Mitie pest technician, Lee Darker, on 17 September 2018 should be a wake-up call for all pest professionals. Lee, 48, and a former soldier was stung whilst treating a wasps' nest at the army's Caterrick Camp in North Yorkshire. He had joined Mitie just a year earlier in September 2017. The coroner's verdict was one of death by misadventure. WaspBane's Karol Pazik suggests, all too often pest professionals put themselves in harm's way for no good reason.

The tragic death of Lee Darker brought on by wasp stings should be a wake-up call to all pest professionals. The death of a fellow pest controller brings home just how much of a health hazard wasps really are. Sadly the heart-felt condolences offered to Lee's family are far from unique as wasps shatter the lives of bereaved families up and down the country.

It is the job of the pest controller to remove, or reduce, the risk that wasps pose to human health, whilst at the same time avoiding unnecessary risks. Even when taking sensible precautions, the risk to pest controllers never truly disappears. Too many times though, is expediency in getting a job done put ahead of caution, placing pest professionals in potentially catastrophic harm's way?

A salient fact that should not be forgotten, is that, unlike other 'accidental' allergies, wasp stings are different. As a weapon they have evolved to attack the body's immune system precisely to cause allergic reactions. Perhaps a better way to appreciate this, is to understand that if we don't have an allergic reaction to a wasp sting then we have been lucky enough to fight off such a reaction.

A number of the poisons found in wasp venom specifically target immune cells in the body – called mast cells. Mast cells form a critical part of the immune system. When mast cells identify foreign bodies, such as bacteria, they release chemical messengers into the blood stream in a controlled way. Those chemical messengers invoke a number of responses in the body to fight off the invading foreign bodies. If, however, mast cells release too many of their chemical messengers, this results in overdose which may then result in death.

Typically, this manifests itself as an allergic reaction and when the overdose affects, for example, the blood vessels supplying the heart, this is called Kounis syndrome.


WaspBane's Karol Pazik

Wasp venom can attack mast cells in two ways. The first, which for ease of reference may be thought of as a direct assault, is much the same as a genuine allergic reaction where antibodies already formed in the body from a previous wasp sting magnify the reaction to the wasp sting, causing mast cells to release an overdose of their chemical messengers. The symptoms of such a reaction come on quickly and are relatively easy to recognise and therefore treat.

The second way in which wasp venom attacks mast cells is more problematic. The attack, which may be thought of as a 'flanking' attack, might not be accompanied by an allergic reaction at all, making it more difficult to recognise.

Sudden deaths

Some cases of sudden death are attributed to this kind of 'silent' Kounis reaction. In truth the medical professions are only recently starting to wake up to the prevalence of Kounis syndrome, which is significantly under reported, especially because the effects may take a fortnight, or so, to take hold.

As more is understood about the role of mast cells, so new conditions are being identified, such as mast cell activation syndrome (MCAS) and mastocytosis. People with these conditions are more at risk from wasp venom, as the mast cells targeted by the venom are either more unstable, or more numerous, resulting in a much stronger reaction.

Just as we learn more details of Lee Darker's tragic passing we discover that the registered use of bendiocarb 1.25% dust (Ficam D) is being restricted to wasps' nests found indoors. What then of orthodox wasp control that has ostensibly relied on treating outdoor nests with Ficam D as a means of protecting outdoor catering and leisure facilities?

No change to effectiveness

In truth the new restrictions applied to Ficam D use will make no practical difference to the effectiveness of wasp control in these areas. Quite simply, treating wasps' nests outdoors has never been a successful strategy for protecting outdoor catering establishments. The change in Ficam D use may actually help reduce risk to human health, both to members of the public, and to pest controllers alike.

It is an interesting fact that pest controllers predominantly get stung when treating wasp nests. Conversely few members of the public attending outdoor catering facilities get stung because of the proximity of outdoor nests. Such members of the public that are stung, are stung by wasps where predominantly the location of their nest is unknown.

This leads to a strange dichotomy of risk in orthodox wasp control where pest controllers place themselves at elevated risk when treating wasps' nests outdoors, all the while failing to reduce risk to members of the public by failing to tackle nuisance wasps that arrive at the site to be protected.

Treating wasps' nests outdoors has never been a successful strategy for protecting outdoor catering establishments, says Karol Pazik

To compound matters further, if the nest eradication is not conducted in a specific controlled manner, then the nest treatment itself may actually increase the number of sweet feeding wasps, resulting in an even higher risk to members of the public attending outdoor catering establishments.

Control the risks not the nest

Integrated wasp management (IWM) has seen a phenomenal rise in acceptance especially in the commercial market for one reason, and one reason, alone. It works. IWM successfully manages risk in outdoor catering and leisure establishments, without having to resort to proactive outdoor nest eradication programmes. As such, IWM is immune to the changes impacting on Ficam D. Where indoor nests need treatment under IWM, then this facility remains available until at least 2028.

The restrictions placed on the use of Ficam D outdoors are justified because integrated wasp management techniques, coupled with the use of high efficiency wasp traps, such as WaspBane traps, are far more effective at reducing background populations of wasps at outdoor catering and leisure establishments without the downside of the environmental impact of outdoor insecticide use.

A nest treated with pesticide which has not been sealed first, trapping the resident wasps inside, will rain pesticide laced wasps all around the surrounding environment.

One of the potential long term upsides to the changes to Ficam D registration is that it may actually increase the value that society places on pest controllers. A frequently heard complaint about orthodox wasp control is that customers see a quick squirt of pesticide powder for a handful of cash as poor value for money.

One of the benefits of integrated wasp management is that it helps build long term relationships between commercial clients and pest controllers. It also shines a strong light on the value of the pest controller's expertise, and therefore their professional status.

Social media has an inordinate amount of influence on people's perceptions and the environment ranks highly in social media agendas. Adopting wasp management techniques that help preserve the environment will provide a sustained and valued service.

WaspBane provides free IWM training for pest professionals. For details of the next course please email: info@waspbane.com

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Change of label, change of approach

Early this year pest professionals heard of changes to Bayer's Ficam D (1.25% bendiocarb) label see *Pest 61:* February & March 2019. These changes affect where the product can be used and what insect species it can be used on. Abigail Reade from the Tree Bee Society explains why she believes it's time to move away from killing bees to collecting bees.

Abigail Reade checks a honeybee colony

Previously, the Ficam D label listed 19 pest species that the product could be used on, including bees. However, upon the renewal of the product's authorisation by the Health & Safety Executive (HSE), bees and many other insects such as spiders, moths and earwigs are no longer listed.

With many pest professionals noticing a year-on-year increase in calls from customers about bees nesting in properties or swarming, going forward what should be the new approach? In short, how should you be dealing with bees on a customer's property?

When carrying out your initial site survey at a property it's important to consider integrated pest management (IPM) and the hierarchy of control. The options go from doing nothing, to using a pesticide as a last resort – but what can be done when your last resort is no longer available?

What is left to do essentially boils down to two options (depending on species):

- Leave the bees alone and advise the customer on the species and on its lifecycle so offer information rather than physically dealing with the bees
- Attempt to physically remove the colony alive – this should only be attempted by a trained professional.

Prior to attending a customer's property, it is first important to establish whether as a company you wish to deal with bees nesting in properties to begin with. For many giving telephone advice about leaving the bees will be sufficient, but, for those who wish to continue to offer a bee service the only option left is to physically remove the nest or swarming colony.

One approach is to get to know your local hobbyist beekeepers. You can then call upon their services to remove the bees. However, despite being highly knowledgeable about bees, many beekeepers won't attend calls for bumble or solitary bees, as they don't have the equipment to remove and house the colonies.

For calls about a swarm of honeybees, hobbyist beekeepers will be happy to attend but as hobbyists they may have other commitments meaning they cannot deal with the swarm immediately. That can be a problem especially if the swarm is causing downtime and loss of business for your customer. In such circumstances many pest professionals decide to collect the swarm. A number of companies provide training to do this. Once collected however, there can be further difficulties in finding a beekeeper to pass the swarm on to. The Tree Bee Society has the answer.

As an accredited training provider through UK Rural Skills (UKRS) and bee removal experts, the Tree Bee Society has developed training specifically for the pest and facilities management industries, namely, 'Conflict bees nesting in urban dwellings'. This covers a range of topics, from the laws, policy and regulations surrounding bees, including current Codes of Best Practice to the live removal of bumblebee nests and the collection of honeybee swarms. Technicians will learn about the different species of bees, their nesting habits and behaviour and how to decide when to go for a live removal and when to simply offer additional advice.

Technicians will also be trained on the Tree Bee swarm collection scheme. This allows you to safely collect swarms of honeybees from your customers' properties using one of our specialised honeybee boxes and then to ship them back to Tree Bee Society HQ.

The next 'Conflict bees nesting in urban dwellings' course is on 24 June in London. To book your place, or find out more information about bees, please visit the Tree Bee Society website at www.treebee.org.uk/conflict-bees-nesting-in-urban-dwellings

New safe bee removal training

As ***Pest*** arrives on readers' doormats, one of our readers Clive Stewart will be about to run his first training course on 'The safe removal of honey bees from buildings and places of inconvenience'. Clive is based in the Stoke-on-Trent area and the first course, which runs over two days, is being held in Knutsford. Day one looks as the theory with day two scheduled to be a hands on practical day dealing with a feral bee colony.

Clive has been a beekeeper for 20 years and a pest controller for the past seven. He is also working on a professional standard for the industry which has already met with some positive feed back from the pest management industry, the beekeeping community and government organisations. We will bring you more news on that when we know more. Meanwhile, for details of future training dates email Clive on: westart10@btinternet.com

Disinfestando delivers

The sixth Italian Disinfestando exhibition moved to Milan on 6 & 7 March. It was a rip-roaring success. Visitor numbers were up a massive 450 from 1900 to 2350. The number of international visitors also increased but this still remains an essentially Italian event – other British visitors were definitely thin on the ground. Exhibitor wise the UK contingent, as pictured, was confined to a select few. Below from left: Pelsis had an impressive display, Fred Hurstel was flyng the flag for PestWest and, from Liverpool-based Yanko, there was Kevin Riozzi and Ian Rogan (standing). Ian Smith from Bird Free (centre) crops up everywhere and his Italan is coming on a treat. Whilst top left Russell IPM's Paul Sidebottom is pictured with ***Pest's*** Helen Riby (centre) and Paul's colleague Gina Taylor.

read more on the web WWW

Pest controller or pest manager?

It was a full house for the Society of Food Hygiene and Technology (SOFHT) event at the Bristol Golf Club on Thursday 28 February. Around 75 speakers, delegates and exhibitors attended the British Pest Control Association (BPCA)-supported conference which took as its theme 'Control or management: the changing environment for pests.'

Delegates from across the food sector, including household names such as ASDA Walmart, Tesco Stores, Unilever, Dairy Crest, Greggs, WH Smith and Premier Foods, gathered at the Bristol Golf Club to meet pest control experts, or, as the conference heard maybe a better description these days is pest management experts. The debate about how this industry should be described isn't new but with the latest edition - Issue 8 of the British Retail Consortium (BRC) standard switching mostly (but not always) to pest management, it was certainly topical for the audience gathered in Bristol.

SOFHT's pest management events are some of its most popular. This one included a small exhibition which also proved popular with delegates. Unfortunately the planned drone demonstration by Mitie pest control had to be cancelled because of inclement weather – rain and high winds.

read more on the web WWW

Above: Mike Ayers, right, explains the new Precision auditing & consulting service

Above: morning speakers from left: Alex Wade, PelGar, FERA's Barry Hilton, SOFHT's Alan Lacey who chaired the event and, for CEPA, Henry Mott from Conquer Environmental Services

Acheta's Mark Bowron right with Lisa Douglas, Nottingham Pest Control and Gareth Flowers, Pukka Pies

Chris Turner, Rokill, left, with Will Golland, Woodstream

Above: speakers, from left: John Simmons, Acheta, PhD student, Federica Boiocchi Aston Unversity and Dr Matt Davies from Killgerm

Left: Will Credicot from Mitie shows off one of the Mitie insepction drones

Left: speakers Brian Duffin from Rokill and Dee Ward-Thompson from BPCA

Killgerm's Richard Nowell, centre, details the different EFKs on display

The next generation of pest controllers lead the way and officially open Disinfestando.

Left to right: Marco Savoldi (Gold Service), Claudio Massara (Mouse & Co), Greta Guazzi (Mocit), Sara Gaibotti (OSD), Marco Constantini (CLD Sanitaria Service), Sara Michele Genicco, (Genicco), Mario Massara (Mouse & Co), Diego Colamartino (CDF) and Gianfranco Cassani (Verdeblu)

Uniquely Italian

Any visitor to an Italian exhibition can't help but spot how different these events are compared to those, say, in the UK or the USA. The presence of the large multinationals is much reduced with the vast majority of stands occupied by home-based Italian firms. What is more, most of these are family-owned and run companies. This gives the whole event a much warmer 'family' feel, as was experienced at this year's Disinfestando event held in Milan on 6 & 7 March.

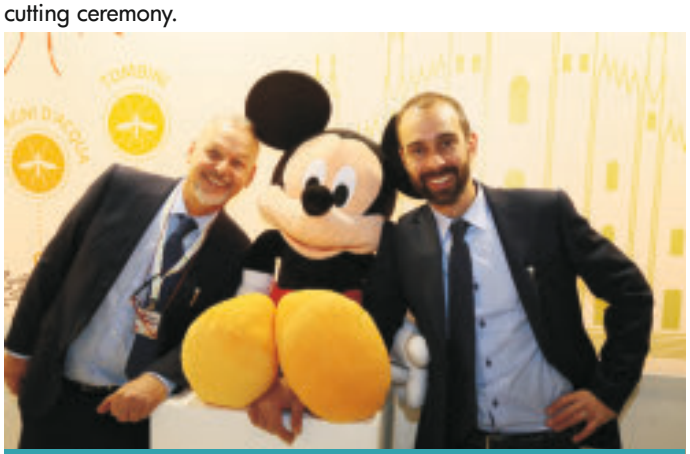
Within the exhibition itself the home-based Italian companies excelled, each with their own stylish, purpose built stand. Milan, the venue for this year's event, was most appropriate, as not only is this northern city the second largest in Italy, it is also the central hub around which most of these manufacturers are located. Whilst Italy remains their key market, it is noticeable that increasingly several of these companies are expanding their interests onto the global, or at least European, stage.

What's more, its not just the manufacturers and distributor companies that are family owned, the same goes for the pest control companies too. Just as in the USA, pest control companies are very family orientated and are handed down through the family. Some in Italy may even rival their American counterparts, for example Sprague, founded in 1926 and based on the west coast in Tacoma now has the fourth generation of Treleven family members involved.

This passing the business onto the next generation was highlighted in the official Disinfestando opening ceremony when the up and coming family members performed the symbolic ribbon cutting ceremony.

Father and son, Dionisio and Enrico Bagarollo from Newpharm

From event organisers, Sinergitech, Licia Rosetti Betti with daughter Giuliana Zaccarini



With a new recruit at ORMA, father and son Francesco and Salvatore Mangogna

Third generation within Colkim, sister and brother Silvia and Michele Albertazzi with cousin Valentina Masotti

One of the Ekommerce founders, Andrea Casalanguida with daughter Ilaria

Spray Team founder, Gianni Bergamini with son, Mauro

Mother and daughter, Daniela Pedrazzi and Sara Gaibotti from OSD

Spotted at PestEx (as well as Disinfestando) Andrea Domenico Colamartino with his uncle Vincenzo Colamartino

Brother and sister, Giovanni and Debora Cazzaro from INDIA

Founder of GEA, father Giuseppe with son Adriano Braghieri

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Smell the bacon

The new bacon mouse and rat lure from Russell IPM is an irresistible flavour that rats and mice cannot resist. They love the smell of bacon just as much as humans do!

Russell IPM say the lure is long lasting, non-toxic and has no known allergens.

www.russellipm.com

Seen at disinfestando in Italy

Tag and Trace

On the InPest stand, Adriano Braghieri was pleased to show the latest digital Tag and Trace system the company has introduced in Italy. This provides a multi-platform digital solution for proactive monitoring. Amongst the features is ButtonTrace – whereby customised buttons send alerts for items such as detected captures or required refill supplies. VigiTrace sensor is an infrared detection IoT system for rodents – it monitors both rodent heat and movement. AmbienTrace is an environmental Co_2 transmitter that monitors temperature and humidity. RaTrace, as the name implies, is an integrated system to detect rodent movements in real time.

www.tagtrace.cloud

Join the INDIA team

Team is the brand name for a range of new products from INDIA – Team not only covers the actual products, but also reflects the INDIA team that supports them. The insect Team consists of four adhesive traps of various shapes for monitoring and capturing insects. Each comes with a glue board and an appropriate pheromone for the target insect. The rodent team of two, is designed to go into bait boxes to catch not only mice, but also insects. The traps come with peanut butter flavoured glue.

www.indiacare.it

Bites that care

In Italy, tree care often comes under the remit of pest control, so this fascinating Bitecare system from Newpharm was on display. Rather than spraying the tree's foliage, with Bitecare the product is injected into the tree and then transported to every part via the tree's own nutrient 'transport system'.

www.newpharm.it

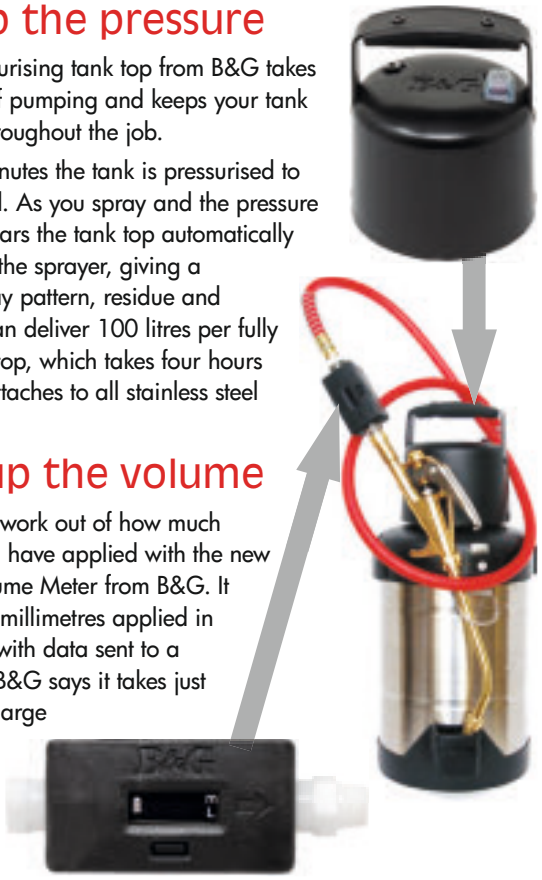
Rank up the pressure

The new pressurising tank top from B&G takes the pain out of pumping and keeps your tank pressurised throughout the job.

In only two minutes the tank is pressurised to 2 bars from fill. As you spray and the pressure drops to 1.5 bars the tank top automatically re-pressurises the sprayer, giving a consistent spray pattern, residue and control. You can deliver 100 litres per fully charged tank top, which takes four hours to charge. It attaches to all stainless steel B&G sprayers.

Pump up the volume

Take the guesswork out of how much insecticide you have applied with the new Treatment Volume Meter from B&G. It keeps track of millimetres applied in each account with data sent to a smart device. B&G says it takes just one hour to charge the battery which lasts up to a week. It attaches to all B&G sprayers.



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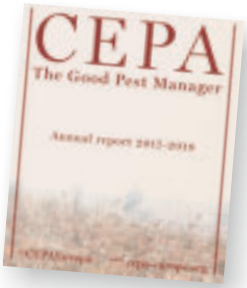
Updated rat and mouse manual

It is ten years since the Rat and Mouse Control Procedures Manual was first published by the Chartered Institute of Environmental Health's National Pest Advisory Panel (NPAP) and a great deal has changed over that time. The newly updated version is now divided into two sections, Section 1 covering 'Methods applicable to rat and mouse activity in and around property'. This, as might be expected follows the CRRU Code very closely, looking at the range of control options available and how they fit into the risk hierarchy. Section 2 offers 'Advice on specific treatment scenarios', taking potential control exercises through from start to finish. There is also guidance on 'permanent' and 'long term' baiting. Download a copy from the ***Pest*** library.

CEPA publishes annual report

The Confederation of European Pest Management Associations, CEPA, has published its first annual report since the change in secretariat. Readers may recall that from1 January 2018 Darwin Associates took charge. The report explains why four priorities underpinned CEPA`s activities in 2018 and why these will continue to dominate. They are: healthy cities, SMEs (Small & Medium Enterpises), sustainability and Euope's citizens.



Whilst the report does tend to be in Eurospeak it's worth a read as, with, or without, Brexit, how our industry is perceived in the corridors of power in the EU will impact our sector immensely. Download a copy from the ***Pest*** library.

New website for PelGar

PelGar International has a new website in line with its new brand identity – see page 4. The site reflects the company's growing global reach allowing customers and end-users to quickly find the product information they need. Visitors to the main website will simply select the region they are from on a global map to be taken to a regional website where available products are catalogued, alongside labels and Safety Data Sheets.

Collecting PROMPT 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 2019 is: PC/79634/19/g

PROMPT Register

Pest Test 62

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, so read through our articles ***How low can you go*** (pages 8-11) and ***Knowledge is power*** (pages 14 to 17) 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 How long does Alex Wade say a 25 ppm product will take to kill a 250g rate?

- a) Twice as long
- b) Only a day or so longer
- c) A week or so longer
- d) No difference

2 Which of the following companies has decided to introduce a **full range** of 25 ppm professional products?

- a) Syngenta
- b) BASF
- c) Lodi
- d) PelGar

3 What might happen to the authorisations for the 50 ppm single feed products next time they are reviewed?

- a) Given a short 1 year approval
- b) Renewed for 5 years
- c) Renewed for 10 years
- d) Might not be renewed at all

4 In which life stage does a cockroach require the most carbohydrate?

- a) First instar
- b) Second instar
- c) Fourth instar
- d) Fifth instar

5 What percentage of a naturally occurring cockroach population is usually nymphs?

- a) 10%
- b) 40%
- c) 60%
- d) 70%

6 Why can it be difficult to control first and second cockroach instars?

- a) Not attracted to gel baits
- b) Don't need to eat until older
- c) Naturally immune to baits
- d) Rarely leave harbourage

Name:

Organisation:

Tel:

Email:

PROMPT account number: 200

Barça has the wow factor

The fourth Barcelona Pest Control Innovation Forum took place 1-2 April 2019. Held every two years this is no run of the mill event. The format is participative and the standard of presentations exceptionally high.

Standing from left the psychologist, Joan Plans, ADEPAP President, Quim Sendra, the rock musician, Salva López and ADEPAP CEO, Mar Toribio, with adventurer Albert Bosch kneeling

The forum is designed to gather together pest management professionals who are seeking ideas to address industry challenges. This year's conference covered the latest digital technologies and ways to effectively implement them into a pest control servicing business. There were around 150 delegates with the majority from Spain. However, simultaneous translation into English is provided for the presentations and there is always one workshop in English.

The first day was certainly a full one. Registration at the venue, the impressive Foundation of the Academy of Medical Sciences and Health of Catalonia and the Balearic Islands, opened at 08.30 and, for those who had booked to attend the social dinner, it didn't end until 23.00.

After the usual welcoming words from the organisers, the Catalonian pest control association, ADEPAP, chief executive Mar Toribio and President Quim Sendra, the morning session got underway with SpeakTacular, a three-man group described as delivering 'mindshaking edutainment'.

The group comprises Joan Plans, Albert Bosch and Salva López. They acted out a job interview scenario with a difference. Briefly the set up was that Joan Plans was a psychologist hired by a company to recruit a business development manager. The audience was briefed that they were going to decide which of the two candidates was best so we all listened hard.

The candidates were far from ordinary. The first Salva López is a rock musician and he used his experiences of the music industry to show how he could manage change and motivate talent in the company. Albert Bosch is an adventurer and explorer who has run ultra marathons, climbed Everest and crossed Antarctica. Like Salva he argued that his experiences provided a template for managing change and motivating staff.

Both candidates gave entertaining presentations which also provided plenty of good business management advice.

Three workshop sessions followed, one with each of the three from Speaktacular. These too were excellent. One looked at creative thinking, one focused on the importance of cooperation and planning and one was held outdoors where two imaginary marathons were run.

The business lesson from the marathon session was clear – globalisation means we are now all running in the jungle where snakes and crocodiles lurk.

At 15.00 there was a visit to the famous Barcelona Football Club followed by several more traditional presentations on various types of new technology including drones, augmented reality, trap sensors and the like.

Day two's keynote presentation was from the USA's National Pest Management Association (NPMA) President, Dennis Jenkins. He outlined how his company ABC Home & Commercial Services has begun to embrace technology and is already reaping the rewards in terms of business growth.

In particular he highlighted how route optimisation has brought spectacular benefits allowing technicians to have a shorter working week and yet service more customers earning more for the company and themselves. He commented that

Speakers from the USA, Dominique Stumpf and Dennis Jenkins with the UK's Henry Mott

Amazon has taught customer to want things now, not a week on Wednesday. And, they want to book appointments, pay bills and ask questions when they want to, not when the office is open.

More workshops followed before the closing session from Dominique Stumpf, CEO NPMA, Henry Mott, President of the Confederation of European Pest Management Assocations (CEPA) and a representative for the Minister of the Catalan Regional Health Department.

Diary dates

9-10 May 2019

Parasitec 2019 - Budapest
HungExpo, B Pavilion, HungaryLondon E16 1XL
https://www.parasitec.org/budapest/

9-13 September 2019

12th European Vertebrate Pest Management Conference
VetAgro Sup, Campus Agronomique of Clermont-Ferrand, 89, avenue de l'Europe - BP 35, 63370 Lempdes
https://evpmc2019.sciencesconf.org/

24-27 September 2019

FAOPMA - Pest Summit 2019
Daejeon Convention Center, Daejeon, Korea
http://www.faopma2019korea.org/

15-18 October 2019

PestWorld 2019
San Diego Convention Center, Manchester Grand Hyatt Hotel, San Diego, California
http://pestworld2019.org/

6 November 2019

PestTech 2019
Arena MK, Stadium Way, Bletchley, Milton Keynes MK1 1ST - Note some sat navs do not recognise post code. Use MK1 1QB or Peverel Drive instead
http://www.npta.org.uk/pesttech/

14 November 2019

SOFHT Annual Lunch, Lecture & Awards
The Brewery, 52 Chiswell Street, London EC1Y 4SD
http://www.sofht.co.uk/

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