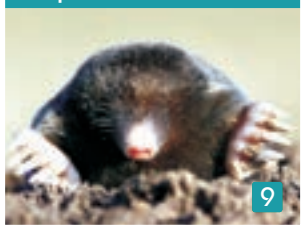
pest

The independent UK pest management magazine

Rodents to the rescue

Issue 24
November & December 2012

The ups and downs of pest control

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Are some traps better than others?

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BED-BUGS

Avoid costly callbacks... use the best first time.

- **Alpha-Cypermethrin** *deadly killing agent*
- **Tetramethrin** *effective knock-down agent*
- **Pyriproxifen** *insect growth regulator*

The PelGar Road Test

Cimetrol, has long been the product of choice for bed-bug control and the control of a host of other public health pests.

PelGar recently conducted some tests in line with the new international standards on product evaluation (TNSG/18). Each product was tested for both knockdown and kill. Cimetrol was used at the higher rate of use and applied to plaques using a highly accurate computer controlled spray booth. After the prescribed number of days the target pests were introduced to the treated plaque for one hour and then removed – similar to the exposure you might expect in a real-life treatment. Knockdown figures were recorded after the initial exposure and mortality 24 hours thereafter.

Tests were carried out on ceramic tile, wood, and soft furnishings – typical household surfaces. The tests were carried out on bed-bugs (*Cimex lectularius*) and German cockroaches (*Blattella germanica*). The bed-bugs were taken from a pyrethroid resistant field strain – representing the toughest test that could be experienced.

The Results

Data has been collated up to one month. Knowing the importance of long-term residual control the tests will be carried out up to 56 days so look out for further results.

Ceramic tiles – are hard and non-porous which allows the active to remain completely on the surface. Tiles are notoriously hard to treat due to spray 'run-off' on vertical surfaces, so careful application is required. Cimetrol performed very well giving 100% knock-down and kill within 24 hours and statistically comparable results up to 28 days.

Wood – a different story is shown when it comes to wood (see graph 1).

While competitor products offer good knockdown the mortality ratios don't match up. Observations show that Cimetrol has an excellent transition from knockdown to kill and remains highly effective well in excess of 14 days.

Soft Furnishing – Along with wood the soft furnishing test is very important with bed-bug control where carpets at wall/floor junctions and curtains will often be treated. Graph 2 below shows the results for mortality after the prescribed number of days.

Cimetrol effectively gives 100% kill of pyrethroid resistant bed-bugs up to one month after surface treatment – after just a one hour exposure to the treated surface.

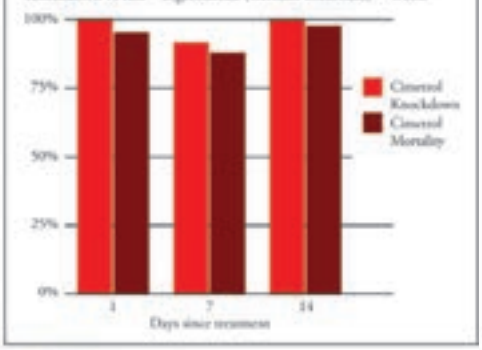
Conclusion

Cimetrol is highly effective on a range of surfaces after initial treatment, with excellent residual knock-down and kill ratios, showing that Cimetrol is the product of choice for bed-bug control, and a whole host of pests including fleas and cockroaches

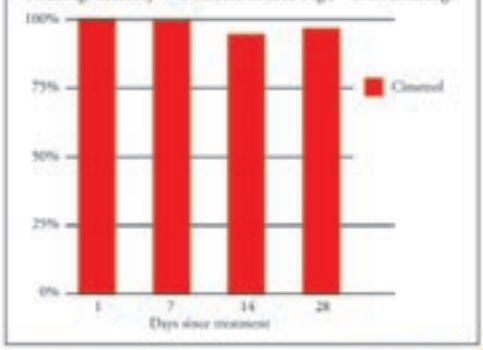
Why is Cimetrol the best?

- **Unsurpassed knock down and kill**
- **Excellent residual control on a wide variety of common surfaces**
- **£££ – Fantastic value for money**

Graph 1
Knockdown vs Kill – B.germanica (German cockroach) – Wood



Graph 2
Percentage Mortality – C.lectularious (Bed-bugs) – Soft Furnishings



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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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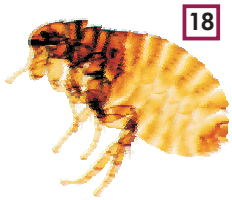

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What an autumn!

Phew! Here in the ***Pest*** office we are trying to catch our breath after having the pleasure of visiting so many events this autumn. See our reports in this issue from PestTech (UK), PestWorld (USA) and Parasitec (France). It has been great catching-up with so many old colleagues, as well as having the opportunity to forge new contacts and friendships. In general, there seems to be a pretty buoyant mood in the pest control industry. Clients might be critically reviewing their costs, but fortunately for us, one thing people are not prepared to live with are pests.

Buoyant the industry might be, but the, shall we call it, 'unsettled' weather over the summer and into the autumn has caused a few problems – the lack of wasps' nests for one. But in the absence of wasps other pests have reared their heads. The survey we undertook confirms what readers had been telling us – that there is a definite upswing in the demand for flea treatments. Please find time to read the résumé of the results on pages 18 and 19.

This just leaves us to thank you all for your support and kind comments over the last year and to wish everyone a happy Christmas and a prosperous New Year.

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BPCA launches Affiliate scheme & new website

At PestTech, BPCA launched its new Affiliate scheme. BPCA says this web-based scheme has been designed for everyone working in the industry to help them keep up-to-date with the latest legislation, products and methods of working.

The Affiliate scheme is based on BPCA's brand new website and will provide affiliates access to online advice and support, CPD materials and quizzes, individual discounts on BPCA training events and publications, personal copies of *Professional Pest Controller* magazine and much more.

BPCA chief executive Simon Forrester explains: "BPCA members tell us that their number one key to success is a workforce of trained, competent employees who are kept up-to-date with the latest legislation, products and methods of working.

"Sometimes it may be difficult to do this properly within a company, and BPCA, as the lead trade association, is here to help," he adds.

Individuals can join this currently free scheme via the BPCA website at www.bpca.org.uk.

IHM joins RSPH

It was announced on 26 October 2012 that the Institute of Healthcare Management (IHM) was joining forces with the Royal Society for Public Health (RSPH). Chief executive of the IHM, Sue Hodgetts, said: "Strategically, joining RSPH is a very positive step and will help us to continue our work enhancing and promoting high standards of professional health and care management." IHM will be based at RSPH's headquarters at John Snow House in Mansell Street, London.

On the move – onward and upward!

New directors at Barrettine


Charles Phillips

Barrettine Environmental Health has announced the appointment of Charles Phillips, currently the technical manager at Suterra, as its new divisional director. The appointment of Charles follows the announcement made in early August that the current incumbent, Chris Parmiter, was stepping-down at the end of this year to set up his own business offering training and auditing. Charles will join Barrettine at the end of January 2013.

Also, following restructuring within the division, from 1 January 2013 David Haskins is promoted to sales director for public health. David has been with Barrettine for five years and will work very closely with Charles and the rest of the team.

American association appoints Bob Rosenberg to top job


Bob Rosenberg

On the eve of the opening of PestWorld 2012, National Pest Management Association (NPMA) announced that Bob Rosenberg, current Senior Vice President, had accepted the position of Acting Executive Vice President.

Bob Rosenberg is well known in the pest management industry, internationally, and has been a member of NPMA since 1989. His career with the NPMA has focused on advocating for the professional pest management industry's interests with federal, state and local government and he is frequently quoted in the media. He replaces Rob Lederer, who abruptly resigned from the position in September.

New editor at International Pest Control


David Loughlin

Nigel Binns, having acted as editor of this magazine for the last three years, is to be replaced by David Loughlin. Nigel will be continuing with his other activities, which includes his consultancy work with Elytra. David is no new comer to the industry, having worked over the last 25 years for a wide variety of organisations commencing with Wellcome and its various incarnations, then most latterly with AgriSense/Suterra. He is an expert in the area of insect pheromones and runs his own consultancy business, Sentomol, based in South Wales.


Arnaud Del Valle

Del Valle joins Bell as southern European manager

We welcome Arnaud Del Valle who joined Bell Laboratories in October as southern European manager, representing Bell products to the professional pest control and animal agricultural markets in France, Italy, Spain, Portugal, Greece, and Turkey.

30 year celebrations underway in Sweden and France

Maybe there was something catching in 1982, as two of the industry's well-known international companies are both celebrating their first successful 30 years of business in 2012.

Founded by current CEO, Kenneth Silvandersson, Silvandersson Sweden AB is a leading player in environmentally-friendly and non-toxic insect and pest control. The company trades in more than 35 countries with 90% of their production exported. Silvandersson is also well-known for developing the Cryonite delivery system.

At Parasitec in Paris it was celebration time for the Lodi Group. Founded by Robert Lockman, who originally worked in the French grain storage market, the business has flourished. It now not only has interests in the grain market, but also in animal health and professional pest control.

Again, international trade forms a key part of the business. Lodi now has offices and facilities in France, Romania and the UK and employs more than 80 people.

Lodi founder Robert Lockman enjoys a celebratory glass of champagne during the Parasitec event in November

Rat tail testing extended to cover whole counties

In an attempt to increase the number of rat tails sent in for sampling, the collection areas have been extended to whole counties. If you remember, these rat tails are being analysed using DNA sequencing to assess for rodenticide anticoagulant resistance.

The counties now covered are:

Area 1: South West England - Worcestershire, Gloucestershire, Avon, Wiltshire and Oxfordshire

Area 2: East Anglia – Norfolk, Suffolk and Cambridgeshire

Area 3: South East England – Kent, East & West Sussex

Area 4: Anglo-Welsh Boarders – Gwynedd, Powys, Staffordshire, Cheshire, Shropshire, Herefordshire and Wrexham

Area 5: North East England – Yorkshire – East & West Ridings, Lincolnshire, Nottinghamshire and Rutland

Area 6: Central Southern England – Berkshire, Hampshire and Surrey

Area 7: South West Scotland – Dumfries and Galloway

Rat tails for areas 1, 4, 5 and 7 are being tested by the University of Huddersfield email: resistance@hud.ac.uk and areas 2, 3 and 6 by the University of Reading email: c.v.prescott@reading.ac.uk

CRRU expands

Membership of the Campaign for Responsible Rodenticide Use (CRRU) has grown to eight with the addition of LiphaTech and Lodi-UK. These two companies join the existing supporter companies of Syngenta, Rentokil Initial, PelGar International, Killgerm Chemicals, Bell Laboratories and BASF Pest Control Solutions.

This 33% expansion in corporate support for the campaign comes at a good time, according to CRRU chairman Dr Alan Buckle. "As we anticipate the outcome of HSE's recent stakeholder engagement about second generation anticoagulant rodenticides, promoting appropriate and responsible use in rural locations will be more critical than ever next year."

Spiders create a spin!

In early November, Abate Pest Management from Morley St Botolph were called into action when they received a call from a Norfolk company reporting a nasty looking spider on their property. Staff managed to trap the spider in a glass tumbler until the professionals arrived when it was quickly identified as a female black widow spider (*Latrodectus mactans*). Considered the most venomous spider in North America, it is not a pest to mess with!

Jon Blake (left) director of Abate Pest Management, with spider hero, technician Ian Parkinson

A plan was implemented which included tracking down where anti-venom was located in the UK – it turns out in just two hospitals. Ian Parkinson, service manager for Abate, had to put to one side his arachophobia and transfer the black widow spider from the glass tumbler to a sealed insect jar.

It was believed the spider hitched a ride on a container from Texas. In addition, a small cocoon was removed from the premises, which within 48 hours had produced approximately 100 spiderlings. These were despatched by means of fogging.

Jon Blake, director of Abate Pest Management commented: "We have been called out for snakes, scorpions and spiders before but never in the past 24 years for one of these deadly creatures."

Spider confusion

This encounter came virtually a month after another spider spotting when one was found in the bar of the officers' mess at Wattisham air base in Suffolk. Two buildings were closed as a precaution as they too thought they had a black widow spider on the base after it had arrived in a crate of equipment from California.

The Ministry of Defence later said the spider in the mess had been identified as a noble false widow spider (*Steatoda nobilis*) and was 'not considered a threat'.

In the UK, the noble false widow spider is often mistaken for the black widow spider. It is not native to the UK and was accidentally introduced more than 100 years ago from the Canary and Madeira islands, probably among crates of imported fruit.

It slowly established itself near the south coast, particularly in Dorset, Hampshire and Devon, and in the last 25 years has significantly increased its foothold in the UK, largely due to warmer winters. Records held at the Natural History Museum in London indicate it is spreading north.

The highly venomous black widow spider (*Latrodectus mactans*) has an unmistakable appearance. About the size of a finger-nail, the female is satin-black and usually has a bright red 'hour-glass' marking on the underside. The pale-coloured male is much smaller and does not bite.

The tube web spider (*Segestria florentia*) is another species not originally native to the UK, having been introduced accidentally from the Mediterranean through trade many years ago. It is now well established in southern counties and is one of three tube spiders living in the British Isles.

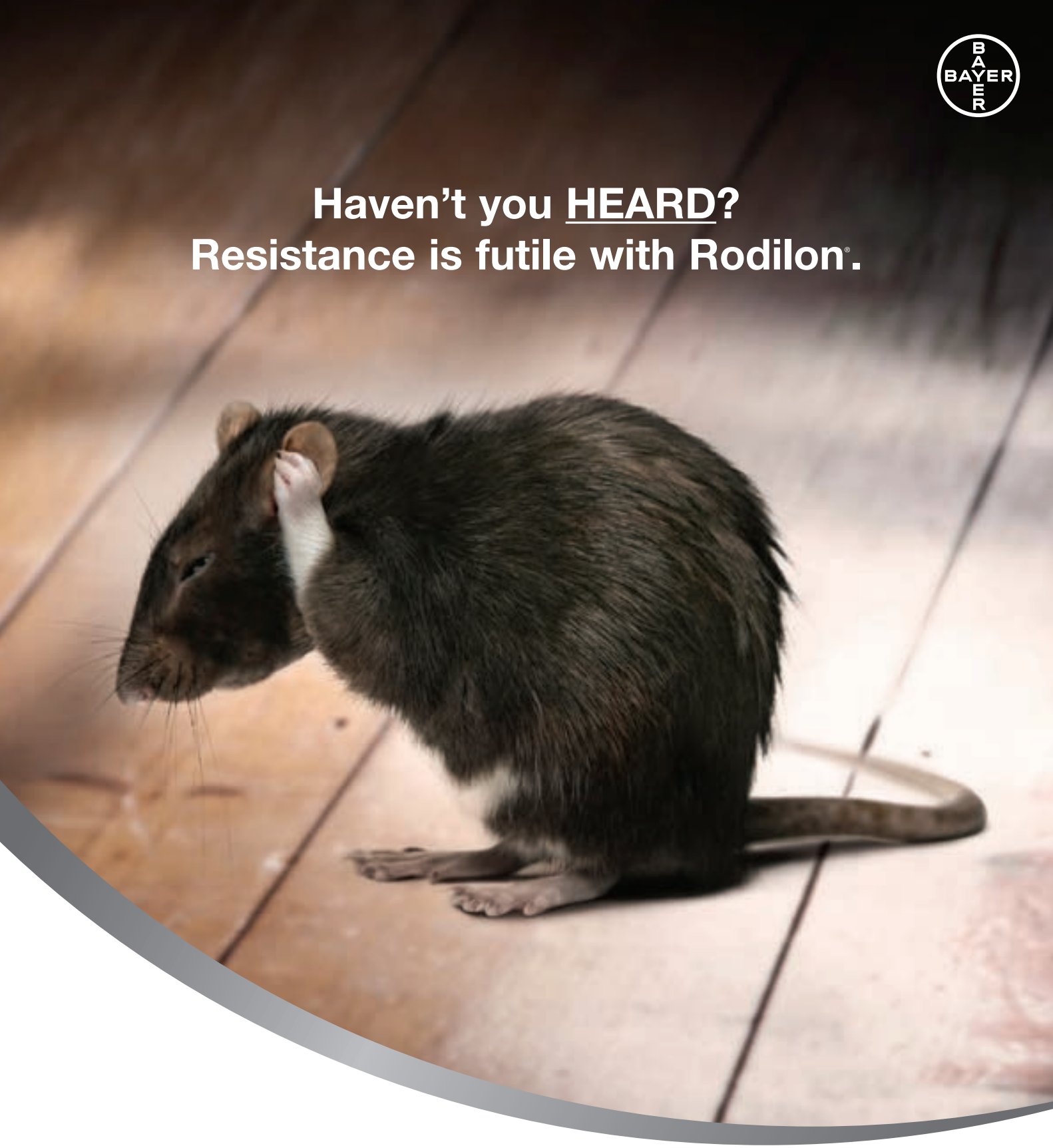
It makes a web in cracks and crevices in walls, fence panels and stonework. It lines the crevice with tubes of silk and at dusk, dangles its legs out of the web to detect and catch passing prey.

The spider has iridescent green on its chelicerae, the part of the mouthparts that the fangs are attached to, which are easy to see in strong sunlight or if a torch is shone onto them. People who pick them up are occasionally bitten. It has quite a strong bite, but its venom, thankfully, doesn't seem to have much effect on people.


The highly venomous black widow spider (Latrodectus mactans)

The harmless noble false widow spider (Steatoda nobilis)

The tube web spider (Segestria florentia) can bite but is not harmful to people



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Every cloud has a silver lining – or does it?

2012 might have been a bad wasp year but there have been more ants and fleas. And prospects for mole, squirrel and rat work continue to be good. Mother Nature has an uncanny knack of evening everything out.

For virtually all pest controllers, this wet and cold summer has meant a disastrous year for wasps' nests. Reports of treatments being 80% down have been received. For the smaller independent pest controllers who rely on 'toping-up' their income from this pest, this is not good news. The local authority sector was equally badly hit. At least one local authority pest control unit faces the high-jump as the lack of wasps' nests means they have failed to reach their income target.

But it's not all bad news. As they say – every cloud has a silver lining. For example, our recent ***Pest*** survey – see pages 18 and 19 of this issue – shows that flea problems seem to have made a comeback. Hopefully this opportunity has filled a few empty coffers.

Ideal conditions for moles

The rain over the summer may have washed-out many holidays, but moles seem to have loved it. The damp ground has provided ideal conditions for them. Wet ground brings worms to the surface and also makes tunnelling activities easier for male moles in search of a mate. So – if moles are your thing, watch-out for a population explosion and all those call-outs.

The warm and wet weather also allowed ants to thrive – both the common garden black ant (***Lasius niger***), but also the yellow meadow ant (***Lasius flavus***). The latter is not usually much of a problem, but the wet weather seems to have pushed this deep-nesting species nearer the soil surface with larger mounds of earth thrown-up.

The warm wet weather caused the usually deep-nesting yellow meadow ant to come closer to the surface resulting in damaged lawns

Cost of starlings comes home to roost

Over the years we have all marvelled at the amazing flocks of starlings – murmurations to be precise – that grace our skies in the autumn and winter months.

To urban pest controllers the main starling problem centres around the quantity of droppings produced once the starlings roost but, for rural inhabitants, particularly farmers, the problems are more severe. Starlings not only pose a potential health hazard, but these large flocks also consume a huge volume of food – food that was destined for the farmer's livestock.

A recent study funded by DairyCo found that reducing starling numbers on dairy farms is likely to be most effective when several control methods are used and extra effort is made in the autumn. The study was undertaken last winter on 11 farms in Somerset by independent dairy specialists Kingshay.

During the study up to 50,000 birds were recorded on one farm in a day, though 8,000 to 20,000 was a more typical average. On a day with high bird numbers, measurements suggested they could eat up to 12% of the ration put out for cows, costing £153 per 100 cows in lost production.

The Somerset Levels attract a huge number of starlings with up to nine million migrating birds roosting on these wetlands every winter

The more control measures in place, combined with greater diligence in their use, led to lower starling numbers recorded. The most effective methods identified to limit the loss in feed were covering or removing the feed, bird netting, human and dog activity and shooting, where permitted. Decoy birds, bird scarers and scarecrows were found to be the least effective.

Although primarily unsightly, the mounds do cause problems, especially in regularly mown lawns. But is this a pest control problem or a horticultural/gardening one? And if pest controllers are asked to treat such problems how should they go about tackling this pest which is well known for its reluctance to feed on baits?

Grey squirrel invasion

Indirectly, the wet weather has caused yet another invasion – grey squirrels into urban gardens. Householders who record bird sightings on the year-round British Trust for Ornithology (BTO) Garden Birdwatch survey have reported squirrel numbers up by a third over the same autumn period last year. Patchy seed and nut crops in the countryside are said to be the main reason.

Perhaps one of the most bizarre reports apparently resulting from the wet weather is of rodent bait boxes filled to bursting point with snails. Installed at the base of large greenhouses, the boxes which are next to where cucumbers are grown seem irresistible to these molluscs, whereas the ones next to those growing peppers and tomatoes are less well patronised.

Boxes facing west appear worst affected and each, once emptied, has been treated with a slug and snail repellent in an attempt to prevent re-invasion.

Full to bursting. Since the bait box was last checked a month ago by technician Mike Lanng of Kent-based Monitor Pest Control it has been totally colonised by snails

The rain over the summer seems to have got rats on the move with numerous reports up and down the country of exceptional

Superstorm's rodent legacy

If you thought it had been wet here, try the watery aftermath of Superstorm Sandy which hit the East coast of the USA in late October. What has been the impact on the rat population? Are the residents going to be over-run with rats? Is an outbreak of rodent-borne disease just around the corner?

New York has something of a reputation as a rat hot-spot. No-one knows how many rats there are in the city, with estimates of at least one per inhabitant i.e. eight million. So what has happened? Surprisingly, not much! So far anyway.

The rats most affected were those living in areas or burrows within the area of the three to four metre storm surge. This included all subterranean zones such as storm drains and the sewer system, utility conduit tunnels, flooded basements, wharves and riverfronts and, of course, the flooded subway.

In the neighbourhoods where Sandy came in as a surge, many rats perished. Those rats that did have time to get out of their nests, tried to find a suitable protective dry shelter. Any young unweaned rats in flood prone areas very likely perished, except for those that the mother rat was able to carry out to safety.

Surprisingly, sightings of hordes of rats have not been reported. In a very few instances, groups of rats (possibly a family of eight to 15 rats) were flushed out together from an earth nest or sewer and were seen by people. In these few cases, the rats seen above ground appeared disoriented and were staying together.

Commenting on the events, rat expert Dr Bobby Corrigan of RMC Pest Management Consulting explained: "Post-storm inspections have revealed that in the surge zones, the rats have been completely eliminated. In a few areas, there are reports of rats being noticed in the upper floors of buildings. But, so far, the impact seems to be inconsistent.

"As far as disease implications go, no studies have been conducted. The disease organism most associated with rats and water/sewer systems is leptospirosis. However, leptospirosis infections in humans from wild populations of rats is extremely low in the United States. It would seem that perhaps flushed water from polluted areas making its way into basements and other occupied areas would be of a greater health threat from mould and contamination issues than flushed rats."

Asked about any longer term affects, Dr Corrigan said: "It will take months to re-evaluate the various populations of rats in New York City. It may be that the house mouse will be free to expand its numbers into areas previously dominated by the Norway rat. But here also, additional information may not be forthcoming for a few months, or even years, after this storm."

The aftermath of Superstorm Sandy

levels of call-outs. But this may well be the tip of the iceberg. Rodents are finding their usual habitats waterlogged and now the cold weather has arrived they are eagerly seeking warmer winter quarters. Already, reports have been received of rodenticides leaving stores by the sack load.

Rats moving in earlier than usual

For example, as Danny Beginn of Knaresborough Pest Control in North Yorkshire explains: "Due to the flooding we have been finding rats moving earlier into buildings that normally offer harbourage in December and January."

He is also finding rats in new locations. "I had a period when I was called out to about five adjacent houses in a street where there had never been problems before" he says. "The householders were all complaining of activity in their loft spaces. It turned out the rats were coming from their waterlogged nests under garden sheds."

So, it is very much 'swings and round-abouts'. In the end, Mother Nature has an uncanny knack of levelling everything out. So here's hoping for a good and pest plentiful 2013.

A 'drowned rat' – well half drowned escapes from a roadside drain in Leicester

Flying ant survey reports

The idea that ants all emerge and fly on the same day is a myth according to the results from the first public survey of the phenomena undertaken by the Society of Biology.

The public mapped 6,000 flying ant sightings mainly thought to be of the black garden ant (***Lasius niger***). These showed two clear peaks in flying ant appearances over one fortnight with one-fifth of sightings occurring on Tuesday 24 July 2012 and another fifth two weeks later on Wednesday 8 August 2012.

Some of the results have surprised the experts. Even over a small area, emergences happened on different days, suggesting that local synchronisation is not as precise as is widely believed.

However, in the time between the two peaks, an area of low pressure moved across the UK, bringing with it wind and rain which it is thought may have discouraged the ants from emerging. So, it may be too soon to throw out the idea of a single emergence altogether.

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Caught in a trap

but are some better than others?

Surprisingly, there are no regulations in the UK to make sure that break-back traps used to control rats or mice are up to the job of killing efficiently or humanely. Neither are there any such rules for mole traps.

Without the need to meet any standards it is not surprising that the number and style of such traps have proliferated and that relative trap performance varies significantly, as researchers from Oxford University and Imperial College London have found out.

Researchers from Oxford University and Imperial College London tested the mechanical performance of break-back traps for rats and mice and mole traps. They found that some traps 'snap' with an impact momentum eight times weaker than others designed for the same species and grip with a clamping force over five times weaker than the strongest.

Tests also found that more expensive traps did not necessarily perform any better than cheaper ones. The large differences in performance have implications for humaneness as well as effectiveness.

As long ago as 1951, concerns about the welfare of mammals trapped as pests resulted in legislation that required spring traps to meet a welfare standard. This requirement was introduced as part of the 1954 Pests Act.

However, back in 1951, the Report of the Committee on Cruelty to Wild Animals concluded that there was no evidence that unnecessary suffering was caused by break-back traps for controlling rats or mice, nor by traps to control moles.

As a result, the Committee recommended that these traps be excluded from the legislation, and they were duly exempted from approval by a provision in the Pests Act, implemented by The Small Ground Vermin Traps Order 1958. And, surprisingly, so it remains today. There are welfare standards for all spring traps except for break-back traps for rats and mice, and mole traps.

Without the need to meet any standards it is not surprising that the number and style of such traps have proliferated and that relative trap performance varies significantly.

The research, which was funded by the RSPCA, tested a range of rat, mouse and mole traps and found considerable differences in their capabilities. The researchers recorded and analysed two mechanical measures of trap performance known to influence their effectiveness in killing target animals. These were:

- The 'linear impact momentum' (the momentum of the killing bar at the point that it strikes the victim)

- the 'static clamping force' (the strength of the grip on the victim once it is trapped).

Each of these factors may cause death, 'impact momentum' damaging the nervous system, blood vessels and organs, and 'clamping force' causing constriction of the blood vessels, and asphyxiation. There is evidence that the combination of these elements accelerates the speed of death.

The research team looked at a range of 18 rat and 23 mouse break-back traps spanning traditional 'treadle' traps, through to the more recently developed 'small-angle' style of plastic trap.

They found a significant difference across the spectrum of traps in both impact momentum (which varied six to eight-fold across the range of traps for each species) and clamping force (which varied four and a half to five and a half-fold across the range for each species).

Perhaps surprisingly, given the size difference between rats and mice, the weakest rat traps were weaker than some mouse traps. Interestingly there was no correlation between trap strength and trap price.

The researchers also investigated the effect of different spring alignments and anchorages. They classified traps into four spring types, 'peg', 'double-peg', 'jaw' and 'pull'. They found that, all other things being equal, traps with 'double-peg' springs tended to generate both stronger impact momentums and stronger clamping forces.

'Jaw' springs, invariably used in 'small-angle' traps, generally produced a weaker impact momentum, but no particular spring type was associated with weaker clamping force.

Mole traps investigated

As well as rat and mouse traps, the researchers also examined a range of the three most widely used styles of mole trap, 'scissor', 'half-barrel' and 'talpa'.

Again there was wide variation in both impact momentum (varied seven-fold across the range) and clamping force (varied four-fold across the range), and both measures differed significantly, not just between trap types but also among different brands of the same type of mole trap.

Among the talpa-type traps, more expensive models produced stronger clamping forces, but otherwise, as with the rat and mouse traps, there was no link between price and performance.

Commenting on these results, Dr Baker said: "Most people would probably assume that traps on sale in this country had to meet welfare standards. Without government regulation, there are no rules to make sure that break-back traps or mole traps are up to the job of killing efficiently or humanely."

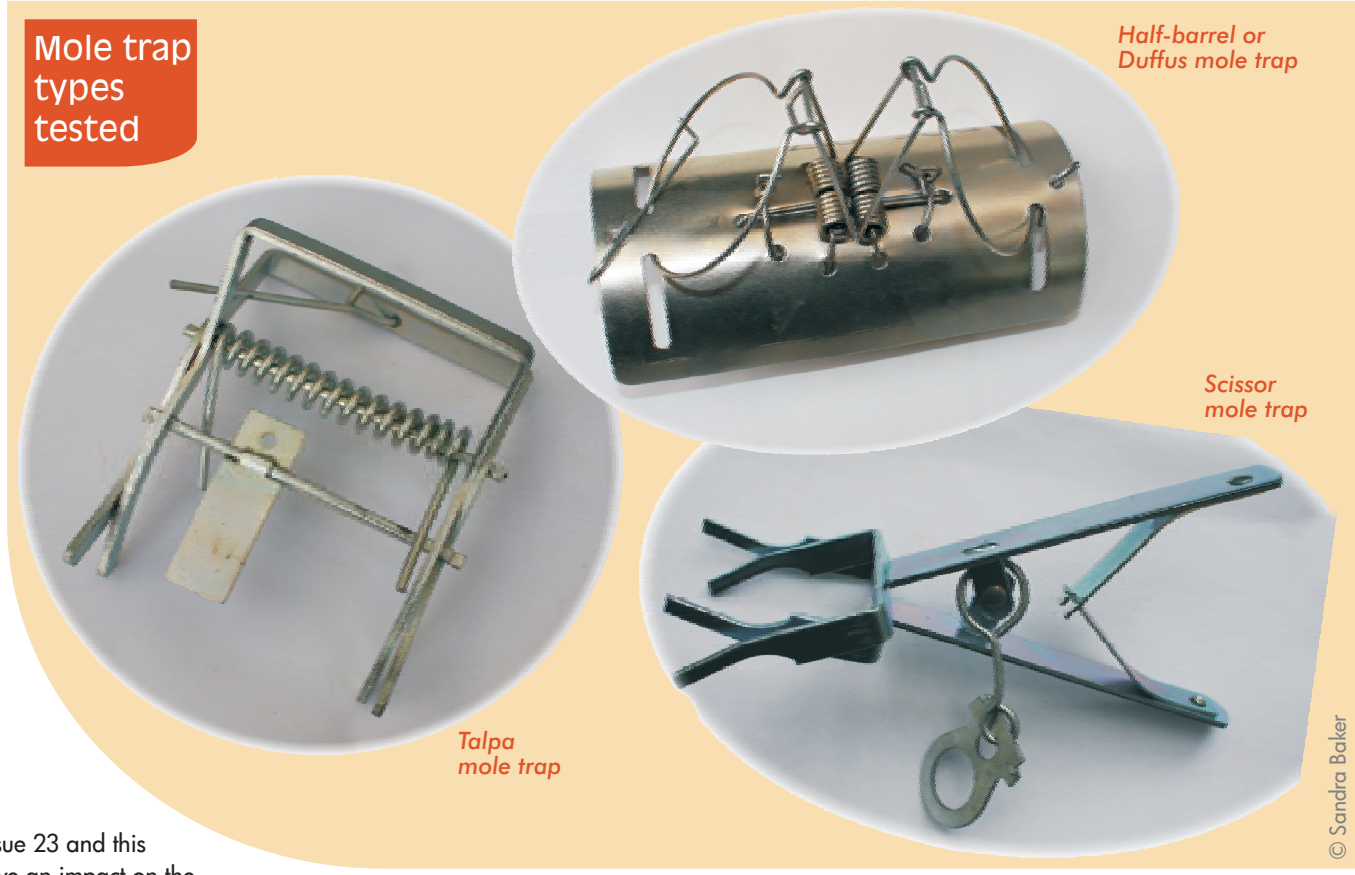
Spring traps, that do require welfare approval, must be able to render target animals irreversibly unconscious within five minutes (in 80% of 12 tests).

Dr Baker continued: "Because no animals were involved in our study, we aren't able to say whether the traps tested would meet current welfare standards. It might be that some were greatly over-engineered and that even the weakest traps tested for each species were powerful enough to kill the target within an acceptable time. However our tests do indicate considerable scope to improve the humaneness and efficiency of break-back traps and mole traps. The long-standing exemption of these traps from the welfare approval process has probably hindered improvements in welfare standards in these traps."

Will there be new standards?

Are we about to see a change in legislation to extend welfare considerations to all rat, mouse and mole traps? Until this year, the EU had been considering the implementation of an EU Trapping Directive, which would have set new standards for the approval and use of traps in Europe, potentially extending the existing legislation to cover more species and more types of trap. However, the EU has recently withdrawn its proposal for a Trapping Directive. Meanwhile, wildlife law in the UK is currently under reform through the Law Commission (see

Mole trap types tested



Pest issue 23 and this may have an impact on the legislation covering trapping and trap approval requirements.

As mentioned before, the current measure for approving spring traps under The Pests Act is that irreversible unconsciousness is reached in 300 seconds, or less, following the original strike.

A recent report by researchers at the Food and Environment Research Agency suggested that trap standards could be improved in general if three tiers of approval were established, with the most lenient being equivalent to the existing five minute standard, and the other two being stricter. They suggested that only traps in the strictest tier achieved for a particular species should be approved. Their view was that this would encourage continual improvements in trap standards without compromising the availability of traps in the meantime.

Dr Baker and her team speculate that there are a number of other issues that need to be taken into account when reviewing the trap approvals system. These include:

- Where a particular type of trap is approved, any other traps deemed 'equivalent in all relevant respects' (e.g. 'in construction, in materials, in impact force or momentum, and in all other respects which are relevant to its effect or manner of operation as a trap') are automatically approved too. However, because these other 'equivalent' traps are not tested it would be possible for a manufacturer to copy the style of a trap but using inferior materials.
- In the years following approval of a trap, the manufacturer may 'value analyse' the trap reducing the specification and quality of materials to the point that, if retested, the trap would no longer satisfy the standards.
- Traps that meet the standards when new, may deteriorate with age.

Trapping likely to increase

So, what are the implications of this work for the pest controller? Concerns about the risks to the environment of using pesticides have never been greater.

Over the last decade the industry has lost several rodenticides (as well as strychnine for mole control), and restrictions on those left are increasing. Trapping is likely to become a more significant element of a professional pest controllers' work. It is therefore important that the traps used do their job effectively and humanely.

Paul Butt of Natural England's Regulatory Improvement and Specialist Services, referring to the research, advises professional users that: "Until we have some regulation in trap performance for rats, mice and moles, make your own judgement on the quality of traps available. Humaneness extends beyond the quality of the trap. Even a well designed and engineered trap can still prove inhumane if incorrectly applied.

"I urge professionals to use their skills to ensure that target animals are trapped as intended. This would include making regular and appropriate inspections once traps have been set," concludes Paul.

Research, such as this undertaken by the Oxford/Imperial team is critical. It highlights inconsistencies in the law; inconsistences which, if not addressed, may lay the industry open to criticism and so compromise public confidence in the methods used.

This article is based on the report *Mechanical Performance of Rat, Mouse and Mole Spring Traps, and Possible Implications for Welfare Performance* Sandra E Baker, Stephen A Ellwood and David W Macdonald (Wildlife Conservation Research Unit, Department of Zoology, University of Oxford), Vito L Tagarielli (Department of Aeronautics, Imperial College, London). The full report is available at: www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0039334

All my own work!

Sustainable rodent control? Look no further than the Jack Russell terrier and, in this case, he's called Basil.

Picture the scene. It's a May morning, Worcestershire farmer Andrew Parkes is about to clear-out the grain store and little Basil is at his side. The JCB starts moving the bales and out rush the rats. Instinct kicks in. Basil pounces. First one dead rat, then another, then another and soon eleven rats bite the dust.

Grain store clearing continues and over the next four hours Basil continues to add to his tally, as more and more rats are despatched. His total score for the morning's work is an impressive 35!

Andrew who runs a mixed dairy and arable farm in Spetchley in Worcestershire points out that Basil is not the main rodent control operative on the farm: "We, like most farmers these days, employ a professional pest control company to help us keep on top of the rat problem," he says. "But we do suffer from influxes of rats every now and again, especially in late autumn."

Sadly, we must report that Basil died this summer. He was running through the wheat stubble with Andrew's young labrador and must have suffered a heart attack. "Whilst it was very sad, Basil did live his short life to the full," says Andrew. "He followed me everywhere and he packed in so much."

To remember Basil, Andrew has fixed a plaque to the farmhouse wall. It reads: A loyal terrier; a great ratter; a little legend.

1 *Look what I found in the grain store*

2 *I checked back and there were more!*

3 *And more...*

4 *Final dead rat count after four hours, 35*

5 *Time for a well earned rest!*

6 *Rest in peace*

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Survey confirms big rise in flea treatments

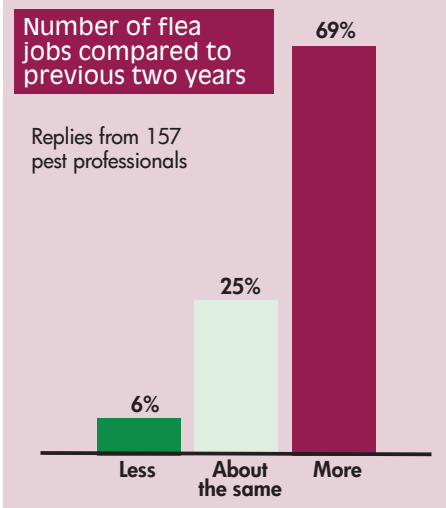
The survey of professional pest controllers conducted by *Pest* in September has confirmed that the number of flea treatments that pest controllers are being called on to perform is increasing. Indeed 70% of respondents reported an increase in flea work compared to the previous two years.

Not only has the amount of flea work increased, the scale of increase is considerable, with just over 40% of pest professionals in the survey reporting an increase of between 20% and 25% with over a third recording increases above 25%. Increases of 50%, 100% and even 150% were reported. Three-quarters of all the flea jobs pest controllers have been treating were cat-related.

Whilst the sample size at 157 was not enormous, the findings do support the comments made by vets and experts like Dr Tim Nuttall, veterinary dermatologist at the University of Liverpool, who received coverage on radio and in the national press over the summer. There do seem to have been more cat fleas about this year.

Why are flea jobs increasing?

So what's the reason? One suggestion has been that it was the result of online sales of flea treatment products which has meant that pet owners now often bypass vets and the advice that vets can give on tackling flea problems. This theory was not something we tested in the survey, but comments from pest controllers suggest that with money tight some pet owners may be cutting back on the spot-on preventative veterinary medicine products that have become so popular in recent years. And that this, rather than the lack of vet advice, could be contributing to the increase. However, when asked by their pest controller, most pet owners with flea problems still claim they are using spot-on products and the most popular one, by far, is Frontline (fipronil).



So could it be that cat fleas are developing resistance to fipronil, which is now also the active substance in a number of other spot-on products? In many urban areas the density of the cat population is pretty high and, if all the cats in one neighbourhood are all being treated monthly with Frontline, then there could well be some potential for selection in the flea population.

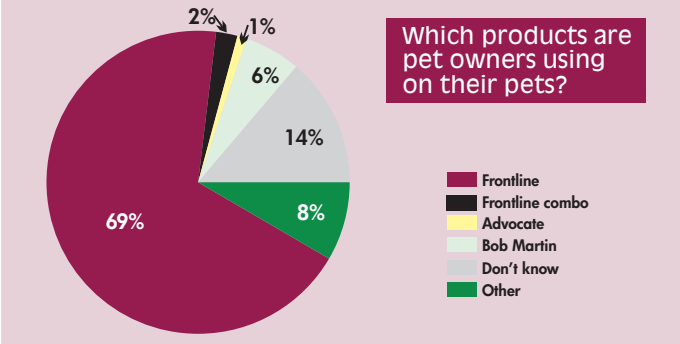
What about resistance to the products used by professionals? It was a call from Barrettine's Helen Ainsworth that prompted this survey on flea work. She had been receiving an unprecedented number of calls from pest controllers looking for help with flea treatment problems. So did the survey throw any light on what might be happening with professional products?

We asked pest controllers to tell us which products they use and, naturally, pest controllers chose different products in different situations. We found that almost two thirds (64%) of pest controllers will sometimes choose Ficam W (bendiocarb) to tackle flea problems, around a third (35%) reported that they sometimes choose Cimetrol (tetramethrin, alphacypermethrin

Flea control tips for domestic premises

- Be sure it is fleas that are the problem before you treat;
- Do a risk assessment. In particular, make sure there are no pets around. If there is something that can't be moved make provision for it. For example fish tanks should be covered and filters turned off (but not for longer than 24 hours as this can damage the activated carbon within the filter);
- Communicate with the householder – explain what will happened how long it will take i.e. up to two weeks after the treatment date to control the problem. Manage customer expectations;
- Ask customers to tidy up and vacuum beforehand, ensuring they dispose of the vacuum cleaner contents as it may contain pupae and eggs. Explain that pet beds and bedding should either be discarded, or washed at 60°C or higher;
- Find out if the householder has tried DIY control. Ask what they used. Selecting a different active substance will minimise any possible resistance problems;
- Fix a time for the treatment. Ensure no-one will be in the house during treatment and that the householder knows that they must keep away from treated rooms afterwards for three or four hours until the insecticide has dried.
- Ensure you read the label and comply with all directions. Spray carpets thoroughly at low pressure (1.5 bar) to ensure proper coverage and minimal spray back. Treat both sides of rugs.
- Provide customers with a report of what's been done. Include information about their health and safety and that of their pets.

In the ***Pest*** survey, many professionals commented that 'householders vacuuming up the insecticide' was one of the main reasons they were called back. However Brian Duffin, chief technical manager at Rokill, says: "It's a myth that customers should avoid vacuuming for the two weeks or so following treatment. Adult fleas are attracted to a host by increased CO_2 concentrations, a heat source and vibration. The vibrations caused by the vacuuming actually help by enticing adult fleas out of the pupal cases and into contact with the insecticide."



and the IGR pyriproxyfen), a similar percentage select other alphacypermethrin-based products with 23% sometimes using deltamethrin-based products.

15% said they always add an insect growth regulator (IGR) to their chosen flea control product (although clearly if using Cimetrol they don't have to), 33% said that they sometimes add one, but 50% said that they would never add an IGR.

Call-backs increasing

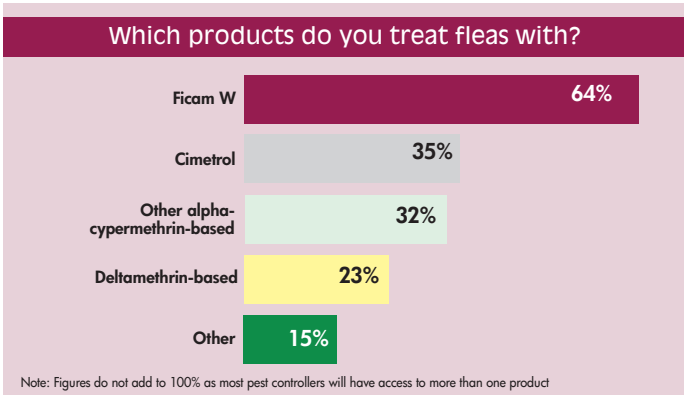
We then went on to ask about call-backs. Getting on for half (45%) said that they were getting call-backs, whilst almost two-thirds (63%) reported that the number of call-backs was increasing compared to last year. A handful of people reported that they suspected resistance to the products they had used to treat the house might be a cause. However, many put the reason for call-backs down to householders failing to follow advice, combined with the apparent reduction in effectiveness of Frontline.

To try to explore this further, we asked whether call-backs were more likely to occur with one product than another. Around a third of those answering this question said 'yes' but there was absolutely no consensus about which product was causing a problem. From this result it seems reasonable to conclude that there is little, if any resistance, to the key products professionals call on to combat fleas.

Whilst there is no hard evidence that any one product is working less well than another, discussions with professional pest controllers subsequent to the survey have thrown up another possible cause. It could be that call-backs for retreatment are increasing as pest controllers, looking to economise, are tempted away from the reliable, old staples, that perhaps cost a bit more than those that contain similar, but not identical, formulations or concentrations of active substances.

Back to the survey, it was good to see that just about everyone who took part offers post treatment advice, although, as we have already mentioned, there was some concern about how much of this householders were following.

Finally, the majority of pest controllers (60%) still only expect to make one visit for flea control work. A further 37% (so that's most of



the rest) plan to make two visits. Asking around the industry there are two schools of thought on this. Some say that if the treatment is performed thoroughly, with a good product (especially if an IGR is added) and time taken to explain to the householder that the treatment can take up to two weeks to work, one visit should be enough. Others, however, see a follow-up visit as part of their customer care programme and offer it at a reduced rate to concerned customers, or simply price it into the job in the first place.

To conclude, there does seem to have been a welcome increase in opportunities for flea control work. Is it due to resistance to the spot-on preventative medicines, or problems with over-the-counter products that householders often try before they call a professional? Maybe! Or, perhaps it's just down to the two mild, wet summers combined with well insulated houses and relatively mild winters that have allowed fleas to thrive.

Pest managers in positive mood at PestTech 2012

Held on 7 November at the National Motorcycle Museum, professional pest controllers from up and down the country arrived at PestTech 2012. Attendance was a little lower than in previous years, but all those who came were eager to find out what was new.

Organisers NPTA's John Davison and Donna Alvey take a minute to relax

Christopher Venables of Venables Pest Control gave a trapping demo. This one's for moles

PelGar had a good team turn out too

There was a warm welcome to everyone from PestTech organisers – the National Association of Pest Technicians (NPTA).

The flow of visitors over the day was more staggered, which went down well with exhibitors, as they had more time to discuss matters at a more leisurely pace with customers.

On the BASF stand pest controllers had a chance to help BASF shape the future by road-testing a novel formulation. We await the results with interest.

Meanwhile, PestFix launched its product catalogue – perhaps there's a new distributor on the block!

PestTech virgins

Making a debut at PestTech was Trust K9 who provide a bed bug dog detection service. With five years experience and five fully trained dogs on the team Trust K9 has plenty of capacity. Interestingly, Trust K9 also offers a treatment solution using the Dryair heat technology that was on display at last year's PestTech.

BSA Guns from Birmingham were PestTech virgins too. The company has a new range of airguns specifically aimed at (or should we say designed for) the pest control sector.

But there is more to PestTech than the exhibition. The practical outdoor events were as popular as ever.

Outdoor debut

Making his debut outdoors this year was Chris Venabales of Venabales Pest Control. He drew quite a crowd with his display of trapping.

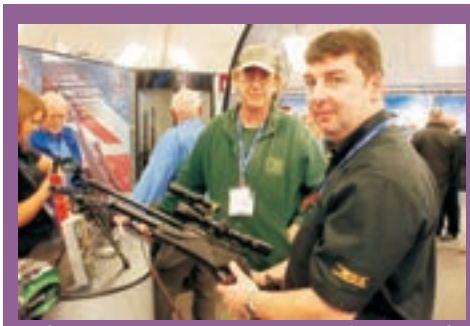
The technical workshops were also well attended. A variety of pest problems featured – ranging from gulls to scent detection dogs and rats and mice.

In fact there was quite a theme around scent, as Professor Jane Hurst from Liverpool University gave a fascinating presentation on some exciting new research into the scent

How's that for a pair of earrings!

It's a first class try for Rugby Pest Control

Don't mess with me, I'm at the PCN dinner!



Left, Simon Moore managing director of BSA Guns, demos one of his company's pest control-specific airguns. Centre, the first PestTech for the Syngenta team after the acquisition of DuPont's pest control products and, right, new kids on the block, PestFix, who launched their new product catalogue – comprehensive enough to satisfy the needs of most pest controllers

signals of mice and rats. Jane and her team at Liverpool are working with scientists from the Hertfordshire-based agricultural research organisation, Rothamsted Research, to investigate the scent signal mechanisms that rodents use to navigate around their habitat, to communicate with each other and to reproduce.

The aim of the research is to find ways to use these signals to monitor and manipulate rodent behaviour.

Gull management was also debated with Simon Moon of Taunton Dean Council in Somerset making the presentation.

Bizarrely, surveys by the British Trust for Ornithology (BTO) have shown that the gulls now commonly found in urban situations are in decline and they have been added to the Red List of species under threat. However, all the BTO surveys have been conducted at the coast but gulls, which are very intelligent birds, have relocated to follow a more comfortable urban lifestyle.
In the urban environment there are predator-free rooftops on which to nest and plenty of food on hand.

If the intelligence of gulls is in any doubt then one of the observations made recently was of a gull picking-up a chip from a town centre and taking it to a pond where it dropped the chip in and caught the fish which ate the chip. This should put those doubts to rest.

The P+L Systems team continues to grow. This was the first PestTech since the P+L acquisition of SX Environmental Supplies back in February

The Professional Women in Pest Management (PWIPM) group also met during PestTech. They heard from Janet Dixon of Lancashire-based Kwickill Pest Control who has been working as a practical pest professional for just over 25 years. Janet got into pest control accidentally. She was dragged in by her Dad to help him out in the family business. But that was 25 years ago and she now loves her job! Calling for more women to get involved in pest management, Janet explained that having a female on the team can be a positive advantage in some circumstances, especially when visiting women on their own.

The impact of risk mitigation measures was debated at the PCN workshop. BPCA, NPTA and NPAP gave their views and Dave Oldbury chaired the session



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Super rats saving lives

Rats and mice are nearly always viewed as the villains of the piece, especially if you are involved in the pest management industry but, as a Belgian charity, APOPO, is proving, rodents can also be a force for good.

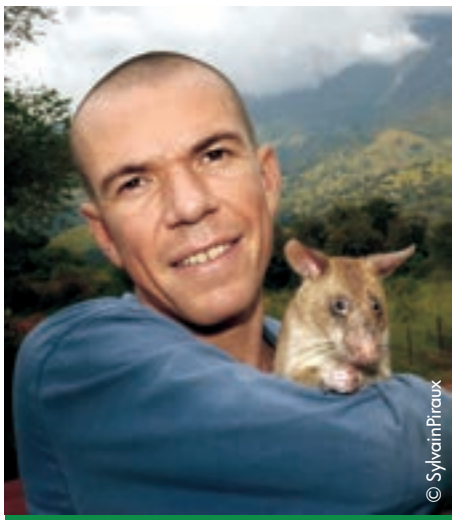
HeroRATs trained by APOPO are saving lives and limbs by using their exceptional sense of smell to sniff-out unexploded landmines and to detect tuberculosis.

What's more they are doing so more cost effectively than landmine detection dogs and, in the case of TB, with much greater accuracy than human lab technicians.

Landmine detectors

The idea to use rodents, or more specifically African giant pouched rats (*Cricetomys gambianus*), to detect landmines and TB is the brain child of the Belgium-born Zen monk, Bart Weetjens.

As a child Bart had a passion for two things – rodents which he bred and sold to local pet shops – and Africa. In the 1990s when the deadly dangers of landmines, especially in Africa, were making headlines with no less than Diana, Princess of Wales appealing for renewed efforts to clear them, he brought these two passions together.



APOPO founder Bart Weetjens

He chose rats as a low-cost, sustainable solution because he knew that they are intelligent, trainable creatures with a keen sense of smell. The African giant pouched rat was selected in particular because it is indigenous to sub-Saharan Africa, has a long life span and is resilient to many tropical diseases.

The rats receive a food reward for their detection work

There are currently 66 countries around the world that are affected by landmines and/or explosive remnants of war. Landmines pose a structural barrier to development and economic growth, long after war ends. Detection of landmines is difficult, dangerous, costly and time-consuming and most developing communities remain dependent on imported expertise to address the complex problems

Fitting the harness ready for work

Training includes socialisation to counteract the rat's natural neophobia

of landmine detection and clearance of suspected areas. But now, the use of mine detection rats combined with the existing technology to remove mines is improving land release rates.

For example, in Mozambique, the HeroRATs team has already returned over 1.9 million square metres of land previously infested with landmines to the local population.

Training and accreditation

Rats have more genetic material devoted to olfaction than any other mammal species and they have the mechanisms to allow them to map all those smells and to communicate about it. All that people have to do is find a way to communicate with the rats.

At four weeks old, young rats are weaned from their mothers and APOPO's trainers begin socialising them to the sights, sounds, and textures of the human world. For example, they are taken passed electricity generators, walk on wet grass, hear music on the radio and go for a ride in the lorry.

This helps the rats learn their environment and eliminate any fear of things they might encounter in the field, in training or during operations.

At six weeks 'click' training begins.

The first step is to get the rats to associate the click with a food reward of mashed banana and peanuts.

After two weeks they are usually ready to be trained on a target scent. The rat is put into a cage with a hole where the target scent is placed and the animal learns to stick its nose into the hole for a full five seconds.

Then the task is made a bit more difficult. The rat learns how to find the target scent in a cage with several holes and to indicate its presence by scratching. Next it learns to walk on a leash in the open and then to find real mines in real minefields. The rats are tested and accredited, just like detection dogs. This consists of 400 m^2 where mines have been placed and the team of rat and handler has to find all the mines.

Mine detection rats have to be licenced just like detection dogs

Why use rats?

- Rats have an exceptional sense of smell, and can be trained to detect explosives. Unlike metal detectors, they can detect both metal and plastic-cased landmines.
- Rats provide a low-tech solution to the landmine problem, especially in low-resource environments.
- Rats are light-weight (approximately 1.5 kg or less) and they will not set-off mines when they stand on them (it typically takes 5 kg to set-off a pressure-activated landmine).
- Rats are very sociable and easy to train, and they don't mind performing repetitive tasks (in exchange for a sweet reward!)
- Rats are small and very cheap to feed, maintain, and transport.
- Rats are motivated by food, and are less emotionally tied to their handlers than dogs – it is therefore easier to transfer them between handlers.
- Rats require little veterinary care, are resilient to many tropical diseases and are highly adaptable creatures.
- African giant pouched rats have a long life span (six to eight years) which means a solid return on the initial training investment.

If the animal does this it gets a license. The whole training process costs around Euro 6000 which is a fifth of the cost of training a detection dog.

APOPO's trained HeroRATS provide a cheap, efficient and effective solution to the global landmine problem. Two rats, working with two human handlers, can cover 300 m^2 of land in one hour. In comparison, two people using metal detectors, will need two full days to cover the same area. In addition, none of the rats weigh more than one and a half kilos so they are far too light to detonate a landmine. HeroRATS are currently operating in Tanzania, Mozambique, on the Thailand Cambodian border and in Gaza.

Sniffing out disease

More recently APOPO has turned its attention to detecting TB. This is a huge global problem with around 1.9 million people dying of TB every year and, it turns out, that trained HeroRATs can quickly and accurately sniff-out TB in human sputum samples.

Today in Tanzania, APOPO offers second-line screening to partner hospitals and has increased new case detection rates by over 40%. The speed at which HeroRATS work is impressive. One rat can evaluate 40 sputum samples in just seven minutes. Compare that to a skilled lab technician who would need a full day to evaluate that number!

The concept is very simple: rats sniff a series of holes, under which human sputum samples are lined up for evaluation. They identify samples that contain TB bacteria by scratching at the hole and correct identifications are rewarded with a food treat.

But the work isn't going to stop there. APOPO is already looking at how to use rats in various other diagnostic technologies and research continues into ways in which rats, fitted with cameras, could help in rescue operations after earthquakes and other natural disasters.

You can support this humanitarian work by adopting a landmine detection HeroRAT – what a great alternative Christmas present – go to www.apopo.org

Over 200 local staff are now employed with 300 rats in various stages of breeding, detection training, research and operations

And now its sniffer mice!

A US government funded project is now looking at genetically modifying mice so that their noses are hundreds of times more sensitive to the scent of explosives than normal house mice. In future, they could be deployed to countries scarred by war to rapidly sniff-out landmines, which would then be cleared by a human handler.

This would remove the need for extensive training which the HERORats have to complete. Mice are also cheaper to manage and house and easier to breed. The hope is that the genetically modified mice will naturally home-in on the smell of TNT and that a chip under their skin will sense changes in their behaviour that indicate that they have spotted a mine and alert their handler.

And even rats with GPS backpacks!

In a further development two professors from Bucknell University, Pennsylvania have come up with a similar system to train rats to recognise and respond to explosives, using materials that can be delivered anywhere, with instructions that anyone can use.

The idea is that the 'training pack' complete with everything you need to train the rats could be dropped anywhere in the world and used even if the people who are using it can't read or write.

The rats are trained to sniff out explosives and circle around when they find some. They are equipped with GPS and wireless rucksacks which then map the explosives for later destruction. The rat backpacks also contain an electronic reward system as an incentive.

The movement of the animals is tracked on a laptop, which uses an icon-based interface specially designed for people who may have little experience with computers. It maps out potential land mines, will produce a map for the site's clearance, and identifies a safe route through the area.

Block treatment re-visited

Clive Boase, left introduced the block treatment session

Can the old technique of block treatment teach anything to 21st century pest controllers? Clive Boase from the Pest Management Consultancy reminded delegates of the concept at Pest-Ventures 2012 before splitting them into three groups. Here Clive summarises the delegate feedback sessions.

Block treatment was established over 30 years ago, to deal with invasive pests in large housing complexes. However much has changed since then, and this workshop reviewed some of the changes, and gave delegates the opportunity to discuss new approaches to block treatment.

Back in the 1980's, most social housing was local authority owned, occupied by council tenants, and pest control was carried out by the authority. However the situation is now more diverse:

- Responsibility for management of housing has transferred to other landlords such as housing associations;
- Many tenants have now bought their flats under the Right-to-Buy scheme;
- New pests such as ghost ants and bed bugs, have become established;
- Private pest control organisations are more involved on housing developments.

PEST-VENTURES

For the Pest-Ventures workshops, delegates split into groups to discuss three key topics around block treatment, and report back on their findings.

The topics were:

Topic 1

A housing block is reported as infested. How do we decide if a block treatment, as opposed to spot treatments, is necessary?

- Should we use a standard threshold, e.g. 10% of flats with infestation?
- Or should we look at each block, and make an ad hoc decision?

In general, the groups believed that it was better to look at the local situation, e.g. pest type, pest distribution in block, construction detail in block, before making a decision. This contrasts with numbers of pest control organisations that use a fixed percentage infestation rate as the trigger for block treatment.

Topic 2

A decision has been made to carry out a block treatment. Should we:

- Access and treat all flats and common parts?
- Or access and survey all areas, but only treat where there is active infestation?

In general, the groups believed that it was preferable to treat only the affected flats. This contrasts with the view that a block treatment should include all flats and common parts.

Topic 3

In practice, there will be a proportion of flats to which access is difficult, because the resident is absent, or does not want to co-operate. How could we improve access to flats?

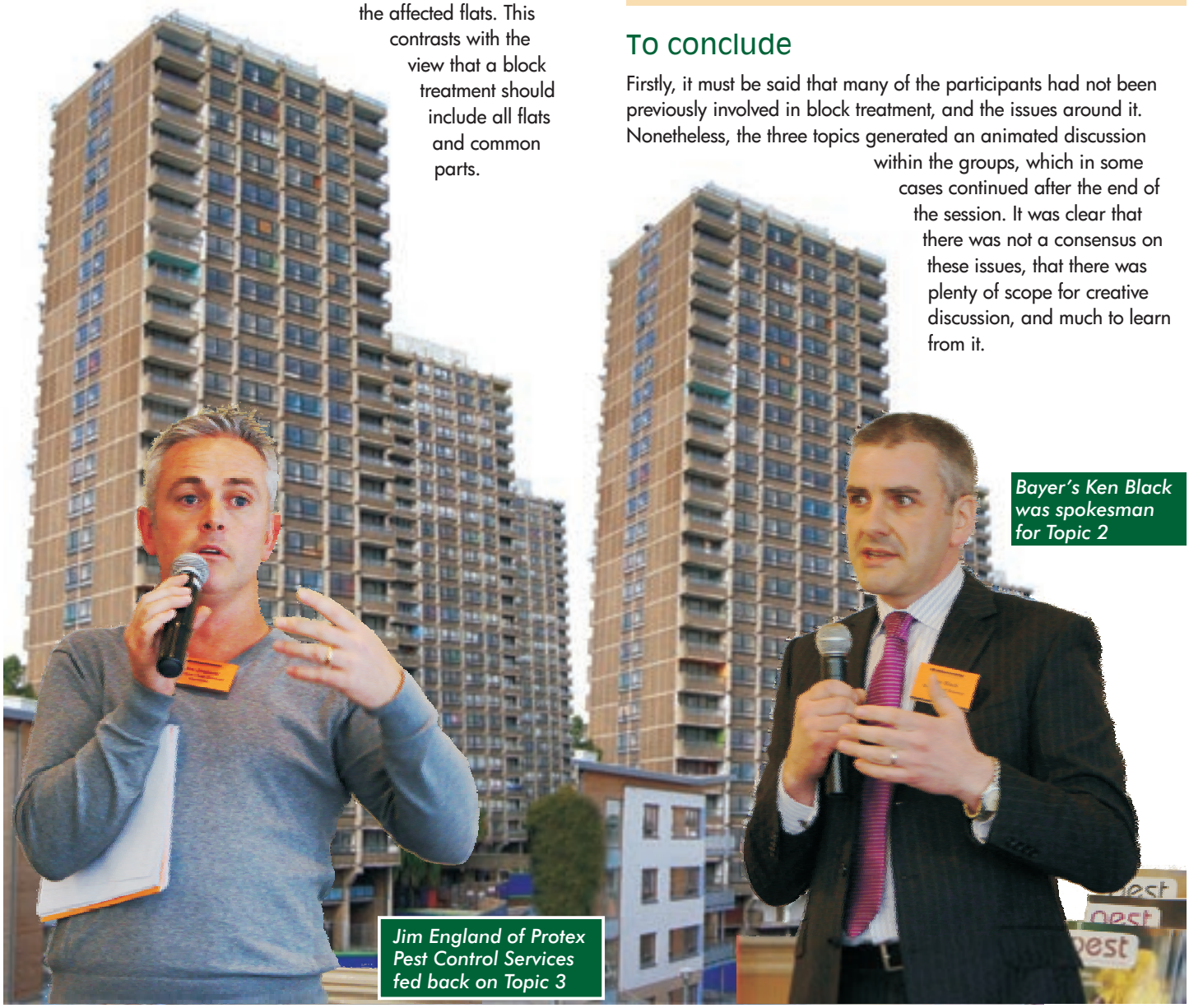
As an alternative to the traditional threat of legal action against non-compliant tenants, the groups came up with a range of 'Carrots' that may increase access to flats during block treatments.

'Carrots'	
Clear tenancy agreement	Use of other languages, where required
Use of explanatory letters	Involving residents' association
Education	Involving community leaders
Direct phone-calls to tenant	Financial incentives
Use of social media	

'Sticks'
Letter covering legal powers and consequences
Fines
Eviction
'Three strikes and out'

To conclude

Firstly, it must be said that many of the participants had not been previously involved in block treatment, and the issues around it. Nonetheless, the three topics generated an animated discussion within the groups, which in some cases continued after the end of the session. It was clear that there was not a consensus on these issues, that there was plenty of scope for creative discussion, and much to learn from it.



Jim England of Protex Pest Control Services fed back on Topic 3

Bayer's Ken Black was spokesman for Topic 2

FMC's Bethwyn Todd with Bob Rosenberg, acting vice president of NPMA

Left Shakir Al Zaidi from Russell with USA distributor Joe Oakes

Marc Esculier (left) president of the French association CS3D and Bertrand Montmoreau chairman of CEPA

Representatives from the Italian association (ANID) with Killgerm's Jonathan Peck

The pest control market goes global

With over 3,300 delegates, PestWorld in the USA is by far the largest global pest management event. Whilst the majority of delegates come from the US, it does attract a large number of international visitors, and this year was no exception with over 65 countries represented. *Pest* editor Frances McKim was among them and brings us this report.

Organised by the USA's National Pest Management Association (NPMA), PestWorld was held in Boston, Massachusetts 17 to 20 October 2012.

NPMA's desire to reach-out internationally was in evidence at the opening ceremony when President Laura Simpson said: "NPMA wishes to foster growth on the international horizon. We aim to seek the right role for NPMA within the global pest control world."

With this in mind, NPMA is setting up a global task force and has already started on a consultation process with other associations. This included meetings held during PestWorld with CEPA and the Chinese association. Already overseas members account for 21% of the NPMA membership, so not an insignificant sector.

If evidence were needed that pest control is an increasingly global business look no further than the recent activities of some the major multinationals.

Following the announcement at the end of August that Syngenta, Switzerland had agreed to acquire the DuPont Professional Products business, this was the first international event featuring the products of the new combined business. Of particular interest to Europe, this includes the DuPont Advion gel products for cockroaches and ants, which have only recently gained registration, and so sale in many European territories.

Also strengthening its non-crop portfolio is FMC. The company announced in September that it is to merge its pest control, turf, ornamental and domestic sectors into one global business to be known as FMC Professional Solutions. In her address introducing the FMC sponsored general session on Friday, Bethwyn Todd, director in charge of professional solutions said: "It is our intention to globalise the FMC Professional Solutions business, increasing our investment in this industry and more broadly, our investment in new products that protect people, plants and property." With currently a low profile in Europe, this may well be about to change.

For years the non-crop sector has been something of a Cinderella part of the multi-national companys' portfolios – but with ever tightening regulatory issues in agriculture, coupled with the production of low priced generic products from the Far East, their attention seems to be turning to these less developed and, hopefully for them, more profitable, non-crop sectors.

The exhibition is always the centre-piece of a PestWorld event. This year there were more organisations represented than ever, but no one product release dominated proceedings, although there was an obvious

Familiar faces from the UK. Left to right: KIllgerm's Veronica Wood-Quereles, Lodi's Roger Simpson making friends with a Boston Red Sox mascot and BPCA's Simon Forrester with PelGar's Gareth Capel-Williams and Nic Blaszkowicz

European exhibitors included Silvandersson, the Swedish company behind Cryonite...

... and the German company, IGEBA, manufacturers of high tech ULV equipment

proliferation of products designed for use against bed bugs.

Verifi, the bed bug monitor from FMC, made its debut last year but, following some production problems, is only now getting into full swing. The technology employed is second to none. It mimics a living breathing host using CO_2 along with two additional attractants – a kairomone and a pheromone. But with a sales price of nearly $30 (over £18), it is an expensive piece of kit. As for sales outside the USA, FMC has identified Canada and Latin America as priority markets, but would not to be drawn as to its plans elsewhere in the world.

Natural solutions

With natural solutions in mind, a new product called Cirkil RTU Ready-to-Use Insecticide and Ovicide from Terramera, caused considerable interest. This is just starting to be introduced across the USA following a recent test launch in California. The product is based on neem – a vegetable oil pressed from the fruits and seeds of the evergreen neem tree (*Azadirachta indica*) which is endemic to the Indian subcontinent and is well-known for its insecticidal activity. The product's promotional material says it is the only EPA registered, botanically-derived bed bug killer. The product claims to save time and increase revenue by two to six fold. Rather a bold statement? Again, it may be a while before this comes across the Atlantic as regulatory requirements will slow-down introduction elsewhere in the world.

From a European perspective it is always encouraging to see so many European exhibitors present on this global stage.

Exhibiting for the very first time was Babolna Bio from Hungary. Well-known for its rodenticides, the company has now secured EPA registration for S-methoprene which is now available in the US as technical material, a concentrate and in aerosol, sprays and bait formulations.

P+L Systems with its range of electronic fly killers is not new to the show, but additions to their stand included the Network products and new this year, following its acquisition, was SX Environmental. Launched at the show was BaitSafe.

A regular at these events is Plastdiversity from Portugal with its range of rodent and insect traps. Completing the list of overseas-based exhibitors was PelGar International working alongside its US distributor, AB Bait Co, Brandenburg, Silvandersson from Sweden and Igeba from Germany with its range of ULV application machines.

At the international reception, from left John Adams from Melbourne, Australia UK's Rob Fryatt, Greg Mills from Allpest Perth, Australia and Cecily Adams

Plastdiversity from Portugal are regulars at these events

Left: Feeling stressed, then you could pick-up a stress ball mouse. Centre: David Cain from Bed Bugs Ltd takes on the role of bed bug ringmaster. Right: I take a picture of you taking a picture of me! There was a large Japanese contingent complete with film crew

Another rescue mission to South Georgia

Three decades after British troops set-off to liberate South Georgia from the invading Argentineans, the task-force this time is a team of scientists prepared to do battle with another invader – the rats.

Bait is transferred to the reloading bag and then into the spreading hoppers

A 25 strong international team, led by zoologist Tony Martin, Professor of Animal Conservation at the University of Dundee, is making final preparations before heading to the icy waters of the Southern Ocean and the remote island of South Georgia in January 2013.

There the team will undertake the world's largest rat eradication project, in a bid by the South Georgia Heritage Trust to rescue a globally significant seabird sanctuary. Dubbed ***Team Rat***, its members will face months of life under canvas in a rugged glacial landscape and in harsh, unpredictable weather conditions, united in a mission to rid the island of millions of invasive rodents.

The Habitat Restoration Project is an ambitious four-year plan to eradicate rats, which originally arrived on South Georgia over a period of 200 years as stowaways on sealing and whaling ships.

Catastrophic effect on wildlife

The explosion in the rat population is having a catastrophic effect on the island's wildlife and ecology, especially its endemic bird populations. The project is urgent, as the impact of global warming is causing the glaciers which separate the rat colonies to retreat. 97% of the glaciers, ice-caps and snow fields which cover about three quarters of the island in summer have retreated since the 1950s. If these separate colonies are allowed to mingle, eradication will become impossible.

Following years of planning, a highly successful pilot phase of the project was conducted in 2011, which witnessed the successful removal of rats from a tenth of the total infested area, using some 58 tonnes of bait, supplied by Bell Laboratories.

The methodology and technology having been shown to be effective, the stage is now set for the second phase of the project to get underway in what is a technically and logistically more complex operation. As project director Tony Martin explains: "The only effective way to eradicate rodents on an island the size of South Georgia is by air and the three helicopters will be used to deliver the rat bait, using precision flying, as they criss-cross the island with giant hoppers suspended underneath."

Production challenges for Bell

Applying the bait may be difficult, but producing this quantity and getting it to remote South Georgia has not been without its challenges.

For almost an entire month in early autumn, Bell's pellet mill at its headquarters in Madison, Wisconsin, USA ran 24 hours a day, five days a week, producing more than 180,000 kg of bait in both rat and mouse formulations.

After cooling, the bait was sealed in 23kg bags by a new bagging machine that could bag 24-manufacturing hours worth of bait in six hours. Each bag bore a readily identifiable label indicating whether it was for rat or mouse control. Then bags were loaded into special ox-box containers with 16 bags per ox-box.

Each ox-box was colour-coded and marked 'R' for rat and 'M' for mouse. At the end of the process the bait was loaded into seventeen 20-foot shipping containers. Each container holds 30 ox-boxes (10 ox- boxes stacked three boxes high).

Hoppers suspended under helicopters proved to the best way to distribute the bait during the 2011 pilot

Some of the loaded ox-box containers ready for shipment to South Georgia

Kyzone®

PEST CONTROL PRODUCTS

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- Realistic imitation of a stone.
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- Well camouflaged
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- Very tamper resistant.
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Rock features

Rock features

Rock with rodenticide

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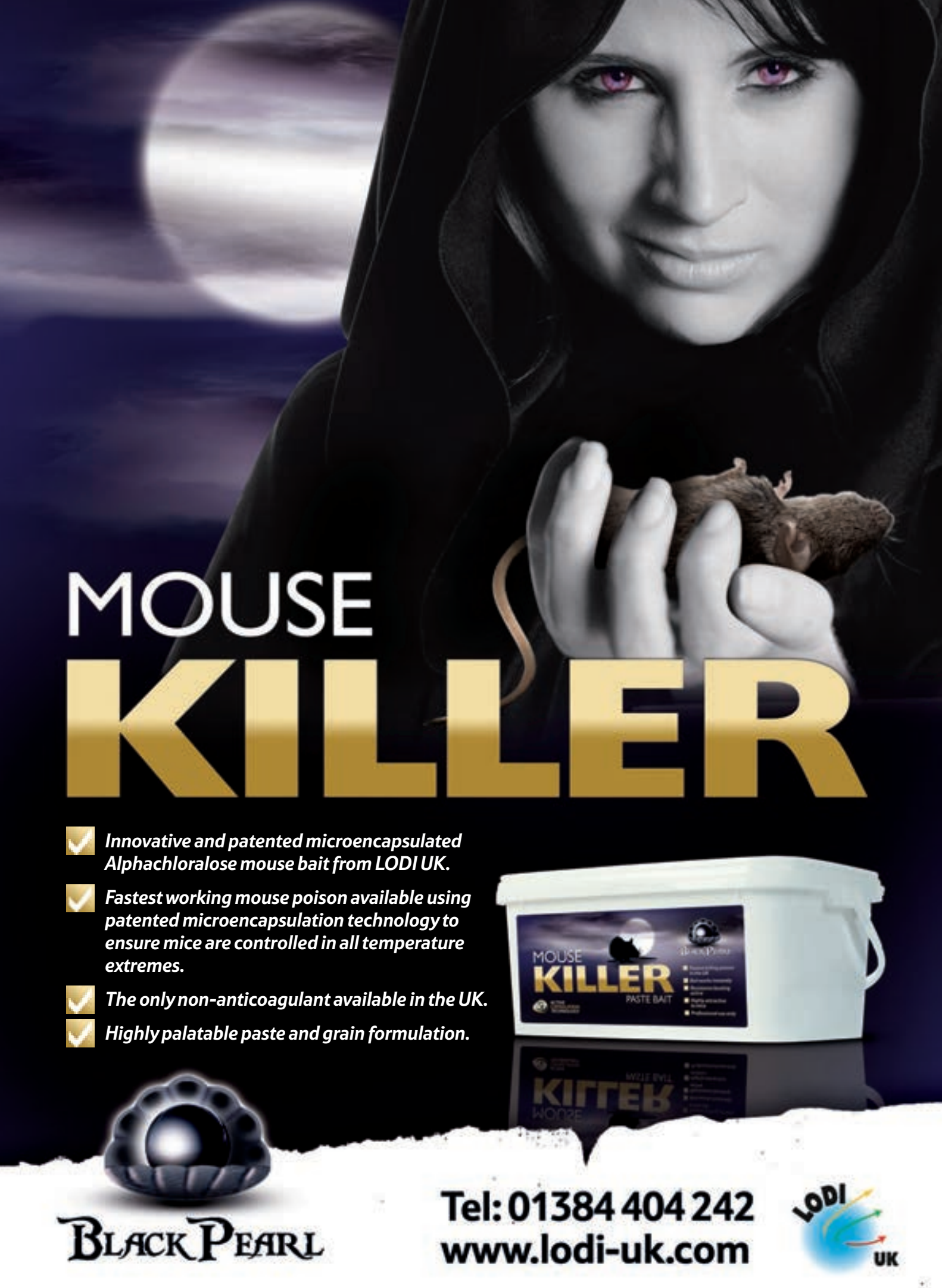

Black Pearl contains 4% Alphachloralose. Use Pesticides safely, always read the label.

Environmental assessments critical with rodenticides

Irrespective of the type of rodenticide baiting technique used, an environmental assessment should always be carried out before treatment using rodenticide baits begins. The purpose being to determine any possible environmental effects and to identify any necessary precautions.

To help pest controllers with this mission, the National Pest Advisory Panel (NPAP) of the Chartered Institute of Environmental Health (CIEH) has prepared a very helpful document detailing how such as assessment should be undertaken and what the problems might be.

Also detailed are potential protected species which might be present in, or near, a treatment site, risks to non-target species and so how to conduct a treatment with minimal risk.

Copies can be downloaded from NPAP site www.cieh.org/policy/default.aspx?id=44174

Targeted at those with museum collections

Preserving museum artefacts is something of a specialised occupation, so the last thing required is for your prized possession to be munched by some marauding pest! Help is on hand, as this handy 16-page booklet will assist you keeping pests at bay.

The booklet, prepared by the Preservation Advisory Centre, identifies those insect pests which will attack books – be it grazing on the paper, attacking the animal glue or making a meal of the starch and dried food. Problems with rodents (particularly mice) and birds are also discussed. Once any problem is identified, means of treatment are identified.

However, the take-home message presented as the conclusion is that prevention is better than cure – so instructions on how to set-up an integrated pest management programme are given.

Copies can be downloaded from www.bl.uk/blpac/pdf/pests.pdf

Bayer's professional guide

The latest edition of this 66-page publication lives up to its title – professional in presentation and aimed at professionals.

Fully updated to reflect the new Bayer product introductions and label extensions, the publication falls into two halves.

The first is a run-down of all the Bayer products available for use by professional pest controllers – including the most recently launched Rodilon range. The second half is a guide to the 25 most frequently encountered pests. This includes line drawings of each pest, characteristics, life cycle, significance, how to control etc.

Copies from Bayer at email: pestcontrolexpert@bayercropscience.com

***Pest* verdict:** If you haven't already got a previous edition, it is worthwhile requesting a copy. It makes an ideal addition to your reference library

Crime scene approach to rodent management

Bell Laboratories' new Rodent Pest Management (RPM) guide brings out the 'inner inspector' in technicians by taking a crime scene approach to solving and controlling rodent infestations. The 12-page booklet covers the major areas of rodent pest management, plus the latest information on bait station security and non-toxic pest management.

Designed like a detective's office, the booklet opens with in-depth profiles of the usual suspects – Norway rats, roof rats and house mice, a.k.a. 'the burrower,' 'the climber' and 'the invader' respectively – including a full rundown on their biology, behaviour and sensory capabilities.

The guide, like good detective work, then leads technicians through a typical inspection to determine the rodent species involved, the severity of the infestation and high activity areas. With easy-to-read descriptions of Bell's baits and bait formulations, technicians will have no trouble choosing the right product. The booklet explores all control options, including non-toxic mechanical traps and adhesives. Printed copies from Bell at email: emea@belllabs.com

Rodent control in agriculture

This 20-page booklet published in full colour by the Home Grown Cereals Authority (HGCA) initially covers pretty predictable ground – for example detailed profiles of the two rodent pests – Norway rat and the house mouse. But, very helpfully, after this comes a whole page on the 12 most threatened rodents requiring conservation under the UK Biodiversity Action Plan – meaning those not to poison by accident.

The reasons for rodent control are listed, but this is followed by a section stressing the benefits of integrated pest management. The rodenticide groups and how to use them are detailed, but also included are the principles of responsible use, as produced by the Campaign for Responsible Rodenticide Use (CRRU). Bringing it bang-up-to-date is a section detailing the geographic spread of rodenticide resistance along with strategies to combat this problem, as produced by the Rodenticide Resistance Action Group (RRAG). Finally, there is a section on record keeping and a sample treatment record table.

Both guide and rodent survey with treatment record can be downloaded from the publications section of the HGCA site at www.hgca.com

***Pest* verdict:** Don't be put off by the agricultural title – this is an excellent booklet which contains, in one publication, the most up-to-date information

The attraction is obvious

Philips MASTER Actinic BL lamps help safeguard hygiene throughout the whole season.

Every year insects, pests and flies present a major threat to the food and beverage industry. One of the most effective ways to eliminate the problem is by attracting them to an electronic fly killer. But the power of that attraction is defined entirely by the lamps inside the fly killer and it is important to realize that not all lamps are the same. When it comes to performance and reliability, there's no better choice than Philips MASTER Actinic BL lamps.

Powerful and long lasting

Philips MASTER Actinic BL lamps are more efficient at generating UVA output than conventional lamps. As a result, they attract more insects and cover a larger area. What's more, the water-based phosphor technology also significantly improves UVA output over lifetime. This means you can rely on an effective performance throughout the whole insect season.

A greener choice

Philips MASTER Actinic BL lamps are a green choice too. Not only are they 100% lead free and very energy efficient, they also contain industry-leading low levels of mercury (3mg) - up to 10 times lower than most competitors!

The real cost of pests

Insects spread diseases that can cause health problems for customers and contaminate everything from food and work surfaces to utensils and packaging. All of which can damage a company's reputation, not to mention its profits. Add to that hefty fines for not complying with auditing and legal requirements and safeguarding your hygiene with Philips MASTER Actinic BL lamps looks even more attractive.

To find out more about Philips MASTER Actinic BL lamps please contact your distributor or supplier or visit www.philips.com/insecttraplamps

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sense and simplicity

Barrettine make it three in a row

Barrettine Environmental Health has achieved an unprecedented third win in a row in the 2012 ***Pest*** Best Product Award. The company's Romax Rodent Seal was voted number one by ***Pest*** readers.

In what was a closely fought battle, Bird Free Optical Gel from JJ Bio took second place with Lodi's Black Pearl mouse killer in a very creditable third.

Barrettine's outgoing divisional director Chris Parmiter commented: "We were absolutely thrilled to win for the third consecutive year. Barrettine invest heavily to offer our customers something unique which will give their businesses an edge and quality innovation is central to this. The fact that the award is voted for by the professionals makes winning all the more special."

Pest associate editor, Helen Riby joked: "We're thinking of banning Barrettine products from the 2013 Award to give someone else a chance! Seriously, we would like to congratulate Barrettine for getting behind the Award and encouraging their customers to take part."

The ***Pest*** Best Product Award 2012 was open to any product launched between 1 January 2011 and 31 August 2012. Readers vote for the product they feel has made the greatest improvement to their working life and/or working practices.

Barrettine's David Haskins collects the winners trophy (the facial hair was for Movember, a charity event to raise funds and awareness for men's health), Ian Smith collects the second place certificate for Birdfree and Lodi's Roger Simpson picks up Black Pearl's award

The 2012 Hall of Fame

Six well-known and respected industry leaders have been welcomed into the *Pest Control News* (PCN) Hall of Fame. Killgerm's Jonathan Peck presented the certificates at the *Pest Control News* dinner held immediately after PestTech.

Diana Al Zaidi from Russell IPM

Nigel Batten now with Killgerm

Tony Harman of Meghun Wildlife

Dr Richard Burton from RSPH

Rob Simpson from BASIS PROMPT

BASF's Roger Sharples (certificate collected by Martina Flynn)

BaitSafe – the next generation bait station

SX Environmental Supplies has launched BaitSafe, described as the most revolutionary change to bait station design in 20 years. BaitSafe offers pest controllers a new alternative to conventional insect or rodent bait stations.

Originally developed in Australia, and spotted at the recent FAOMPA conference in Adelaide, BaitSafe can be installed into walls, ceilings, flat roofed areas, eaves and floors, allowing technicians instant access to a previously hidden world, where pests live and breed. It requires a 90mm hole and has been designed to sit flat so it does not draw people's attention.

BaitSafe has a unique locking mechanism which requires an access key so preventing any accidental opening of the bait station and subsequently denies access to the poisons within. The device can accommodate bait blocks, pellets, paste and in some situations liquid baits.

The product, explains SX, offers a unique solution to the issues faced by pest controllers on a daily basis, tackling both crawling insect and rodent problems at their source. It can be used in homes, apartments, businesses, factories, schools, retail outlets and more...

www.pestcontrolonline.com

Talon gives rodents a pasting

Syngenta, on its first appearance at PestTech following the acquisition of the DuPont range of public health products, was delighted to launch Talon Soft. This is a single-feed rodenticide containing brodifacoum, active against all rodents, even those resistant to other anticoagulants, explains Syngenta.

Presented in a 300g tube and with the paste-like formulation, Talon Soft is laid using a standard caulking gun. This, claims the manufacturer, allows quick, precise application and greatly reduces the time required to clean-out partly-consumed bait from the bait point.

It remains palatable in a variety of temperatures and environments and with no risk of spillage or movement by rodents it is ideal for sensitive areas, such as food processing or storage areas.

Talon Soft joins the range of other Talon products – Talon wax blocks and Talon pellets.

www.killgerm.com

Designed by users, for users

On display at PestTech was a new pest control reporting system. Originally developed by Northumberland County Council for its own use the Council is now making the system available to other users – be they local authorities or pest control companies.

The system caters for the range of services offered, costs of treatment etc, but the smart bits include the facility for residents to book, re-book or amend an appointment online, as well as to make a payment 24/7. For technicians, they can access their work schedule direct from their vehicle without having to return to the depot. At the touch of the screen they can text their next appointment en route to ensure the client is ready.

The system allows capture of management and financial data – such as information on specific areas/officers, work patterns, pests, products used etc. To review the system go to www.northumberland.gov.uk/default.aspx?page=656 or email: Stephen.Simmons@northumberland.gov.uk

Disguised as a rock

Placing bait stations in public areas is always tricky – they need to be discrete so passers-by fail to notice them. This new bait box from Plastdiversity is buff in colour and is designed to resemble a large stone, so is ideal to use in gardens and other public places.

Contained within the rock is a drawer system onto which the rodenticide can be placed. The drawer is locked with a key, so ensuring tamper resistance. The unit itself can be secured with a stake into the ground, or with screws into impermeable surfaces.

www.plastdiversity.com

New developments with Cryonite

Having been in use for some years, the manufacturers – Silvandersson from Sweden – have further refined the Cryonite delivery system making it easier and more flexible to use.

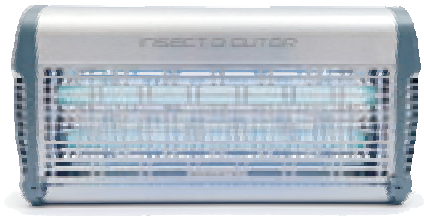
When using Cryonite, carbon dioxide is converted to dry ice or 'snow' which the machine emits from a specially developed extendable lance onto the target pest. However, in certain situations e.g. hotel bedrooms when treating for bed bugs, this telescopic facility is unnecessary. Consequently, Silvandersson has developed a lighter and shorter application rifle (pictured above the longer lance). At the same time the hoses within the rifle have been redesigned delivering significant cost-savings and making the whole machine not only easier to use, but also less expensive.

www.cryonite.com

The latest generation of Exocutor

A long-standing favourite with specifiers, the latest generation of Exocutor models promises the same consistent results alongside quick and simple servicing.

The Exocutor range is full of features designed to maximise useful UV light output – from the internal aluminium UV light reflectors which re-use the powerful insect attracting wavelength of the Sylvania BL 368nm tubes, to the unique light scoops which allow light to exude from the corners of the unit as well as the front, back and sides. Staggered tube positioning means the maximum amount of UV light is radiated from all areas, luring flying insects into the highly effective triangular killing grid, explains the manufacturer, Insect-O-Cutor.



Available in 16W, 30W, 40W or 80W units in a stainless steel or white finish with contemporary design. The range allows flexible wall mounted, ceiling hung or table-top installation, with tool free access to the killing grid and a deep catch tray for quick and efficient servicing.

www.insect-o-cutor.co.uk

Non-toxic monitoring fresh bait

The latest addition to the rodenticide Ratimor range from manufacturer Unichem is Ratimor monitoring fresh bait. This non-toxic bait, is specifically manufactured for the detection of rodent activity indoors and around buildings.

Designed for use where rodent activity is suspected, this monitoring bait is claimed to be highly palatable and provides a new alternative to non-toxic baiting. The product is packed in individual 10gm sachets, all in a 5kg tub.

www.killgerm.com

Take the Pest Test

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*** and answering all our questions correctly. So read our articles on spiders (page 6) and treating fleas (pages 18 & 19) in this issue of ***Pest*** and answer the questions below.

Try to answer them all in one sitting and without referring back to the article. **Take care as some questions may have more than one correct answer so tick all the answers you believe are correct.**

SEND COMPLETED QUESTIONS to: ***Pest*** Magazine, Foxhill, Stanford on Soar, Loughborough, Leicestershire LE12 5PZ. We will contact you with your result and, if your answers are correct, we will credit your CPD points.

1 Which spider is highly venomous and must be treated with extreme care?

- ☐ a) *Araneus diadematus*
- ☐ b) *Segestria florentia*
- ☐ c) *Steatoda nobilis*
- ☐ d) *Latrodectus mactans*

2 How can you easily identify *Segestria florentia*?

- ☐ a) By the iridescent green chelicerae (mouthparts)
- ☐ b) By the bright red hour glass marking on its underside
- ☐ c) By the yellow spots on all its legs
- ☐ d) By the blue markings on its abdomen

3 What minimum temperature should pet bedding be washed at to eliminate fleas?

- ☐ a) 60°C or higher
- ☐ b) 40°C or higher
- ☐ c) 20°C or higher
- ☐ d) 10°C or higher

4 When spraying carpets for fleas, what pressure are you advised to set your sprayer to?

- ☐ a) 1 bar
- ☐ b) 1.5 bar
- ☐ c) 2.5 bar
- ☐ d) 3.5 bar

5 In the ***Pest*** flea survey, which product was reported to be the most widely used?

- ☐ a) K-Othrine
- ☐ b) Cimetrol
- ☐ c) Ficam W
- ☐ d) Phobi Dose

6 When treating for fleas, household pets should be

- ☐ a) Locked in a treated room
- ☐ b) Excluded from any room to be treated
- ☐ c) Sent to the kennels/cattery
- ☐ d) Sprayed along with the carpets

Name:

Organisation:

Tel:

Email:

PROMPT account number: 200

Parisitec packs them in

There was little time for sightseeing during this year's Parasitec event which returned to Paris this November. Running over three days from 14 to 16 November, it is organised by Pest Control Media who also publish the French independent trade magazine, N&Pi. The exhibition hall was bustling throughout and from the figures supplied by the organisers, Parasitec has claimed top spot for numbers of visitors. In total there were 2,108 of them. This compares with 1,500 visitors to Eurocido in Germany in February this year, 1,100 at the Italian event, Disinfestando 2011 and 1,632 at PestEx 2011. There were more stands than when the event was last in Paris with 67 compared to 57 in 2010. The conference and demonstration programme which runs alongside the exhibition also attracted plenty of interest.
For a more detailed report please go to the ***Pest*** website.

read more on the web www

Ana Francisco from Plastdiversity launched two new multi-use bait stations


Ian Smith from JJ Bio was at ease explaining the benefits of Birdfree in French


UK visitor, Mark Ward from Command Pest Control takes a look at Alcochem's litter bin with in-built wasp trap and bait station


The Bell team was out in force. Left to right: Arnaud Del Valle, Brady Hudson and Tino Panetta


Left, Ferhat Benyahia from Swedish company, Silvandersson demonstrated the new Cryonite applicator

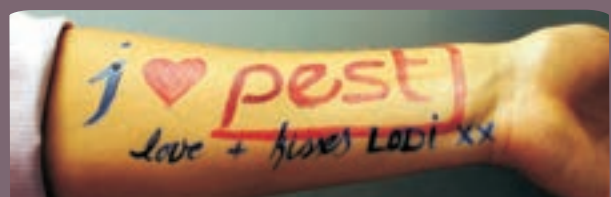

BPCA's Simon Forrester with Grahame Turner from P+L Systems


UK visitor, Graham Limer (left) of Pest Solutions came with his wife. They are pictured with Fred Hurstel of PestWest

Below, Breton metal sculpturer, Rol, exhibited a series of wonderful creations with a rodent theme, including this giant mousetrap


Hungary-based Babolna launched the company's new ant bait, Biopren but they also showed they had a sese of humour with various members of staff taking turns to wear the mouse hat. Below it was Judit's turn!


As well as the exhibition there was a popular technical seminar and demonstration programme. Above, BASF's James Whittaker (left) demos ant control.



On the Lodi stand, a tattoo artist who was kept busy painting 'I love Lodi' on visitors' forearms. But Lodi UK's Roger Simpson changed the message. Thank you Roger. Fortunately the tattoos weren't permanent. They soon washed off!

2013

Month	Day	Event	Venue	Find out more
February	5	Challenges Faced by SME Biocide Producers	Sheraton Airport Hotel Brussels, Belgium	www.TSGEForum.com
March	6-7	Disinfestando 2013	Palacongressi, Rimini, Italy	www.disinfestazione.org/anid
	17	Second Urban Badger Conference	Pride Park, Derby	www.urban-wildlife.co.uk
April	10-11	PestEx 2013	ExCeL, London	www.pestex.org
September	22-27	European Vertebrate Pest Management Conference (EVPMC9)	Turku, Finland	www.evpmc.org
October	23-26	PestWorld 2013	Phoenix, Arizona USA	www.npmapestworld.org
November	6	PestTech 2013	National Motorcycle Museum Birmingham	www.pesttech.org.uk

Attention swings to spring events

Having just finished the round of pest control exhibitions this autumn, thoughts turn to the spring events.

On the exhibition front, first-off is Disinfestando in Italy. Organised by the Italian trade association (ANID), the Palacongressi in Rimini is the location this time around. The dates to reserve are 6 & 7 March. As PestEx, this event is only held in alternate years, but it is worth a visit.

PestEx, organised by the British Pest Control Association (BPCA) returns in 2013 to what is becoming its regular location – ExCeL in London. The dates are 10 & 11 April 2013. Word on the block is that exhibition space is virtually fully booked, so if you are interested in exhibiting get in touch with BPCA pretty sharply, or consult the PestEx website at www.pestex.org.

But for international biocide manufacturers, especially the small to medium sized ones, the year starts with a specialist regulatory conference to be held at the Sheraton Airport hotel at Brussels airport on 5 February. Organised by the TSGE Forum, there is a top-class selection of speakers including Raf Bruyndonckx from CEFIC and Pierre Choraine from DG Environment, European Commission, Brussels.

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