

# pest

The independent UK pest management magazine

## Testing terrain for traps



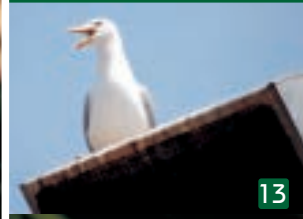
Issue 32  
March & April 2014

New insight into London's Black Death



11

Changes afoot for bird licences



13

Knowing your ants aids control choice



18

Flying into Dortmund for Eurocido



38

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

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# Contents



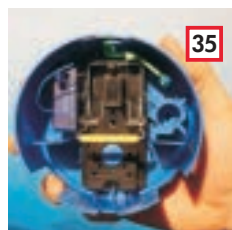
9



10



29



35

Industry news	4
People on the move	6
People power and SGARs stewardship	9
RSPH ramps-up its RAMPS activities	10
London's Black Death – rats & fleas not entirely to blame	11
Bird management news	12
Don't be boxed in – new EFK developments	15
A good year for ants?	18
Made in Wales – the Russell IPM story	20
Trapping lessons from New Zealand	25
No hiding place – thermal imaging finds the mice	29
Novel ideas in rodent control	30
New literature	33
Take the Pest Test	33
New traps looking for a home	35
Products – what's new?	36
Eurocido kicks off spring events	38
Diary dates	39

## Every threat can be an opportunity

The second-generation anticoagulant rodenticides (SGARs) remain firmly in the spotlight. As we report on page 9, proposals for the requested Stewardship programme were formerly presented to the Oversight Group (HSE, Defra, Public Health England) on 4 March. But it seems the goalposts had been moved by the intervention of the Barn Owl Trust and, consequently, the industry was sent away to do more work. As is often the way with these things, politics came into play after the Barn Owl Trust's online petition prompted ministerial intervention. Whilst we might not like it, online petitions are now a part of the way a modern democracy works.

With such a dark cloud of uncertainty continuing to hang over the future of the SGARs, it is perhaps not surprising to see a surge of interest in other means of controlling rodents. On page 25 we report on the lessons we might learn from trapping in New Zealand. Here traps are being used, in unforgiving terrain, to catch and kill invasive species such as the common brushtail possum, featured on our cover. At the Eurocido event in Germany, sophisticated rodent traps seemed to be round every corner and there was also plenty of talk about non-tox monitoring baits. One that caught our eye was made of aromatised plastic so, unlike food-based non-tox blocks, it won't be feeding the rodents.

*Frances Helen*

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## Ecocleen Services acquires PestForce

On 1 March 2014, the pest control industry greeted a new company to its ranks with the acquisition of PestForce by Ecocleen Services. Based in Henley-on-Thames, Ecocleen Services, like PestForce, operate as franchise businesses. It is believed PestForce has in excess of 100 technicians spread over the 80 individual franchise companies and its website claims it has "a pest controller in every town nationwide."



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## Football dreams become Crystal clear

It was a dream come true for the football fans of Croydon-based Cleankill Environmental Services when the company took up the opportunity of sponsoring a sell-out business club event at Crystal Palace Football Club.

Cleankill managing director Paul Bates said: "I have been a Palace supporter, man and boy, and most of my family members, including my daughter, have season tickets. This event was brilliant from a business point of view as we were able to make some new contacts and from a personal point of view I got the opportunity to meet Tony Pulis." Quite appropriately, Crystal Palace has a pest-prevention contract with Cleankill!



Mixing in the right football circles (left to right): former player and now coach Gerry Francis, Steve Browett (Palace co-owner), Paul Bates of Cleankill and Palace manager Tony Pulis

## Exosect changes its way of doing business

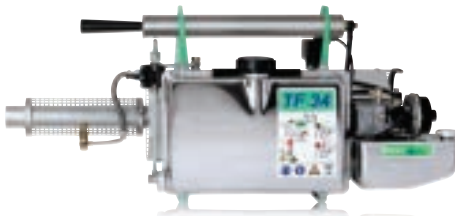
Winchester-based, venture capital funded, Exosect has announced the completion of the company's transition from direct product sales to an out-licensing model. Put into layman's language, this means Exosect will no longer be developing its own finished products, but will be providing the technology for other companies to develop their own under a licence agreement. In the pest control sector, the existing products of Exosect SPTab and Exosect CLTab are distributed in the EU by PestTrader, who also previously acquired Exoroach.

To accompany this change, Rob Cannings has joined the company as director of business development. Rob has 25 years experience in the industry, most recently working in the marketing of biopesticides with Bayer.

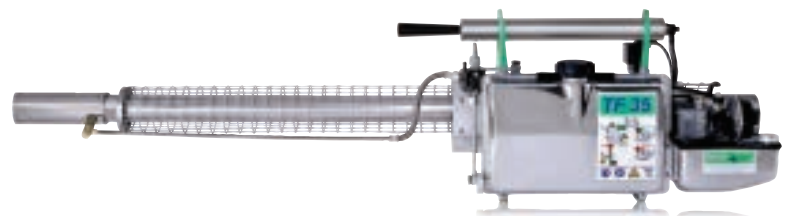
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## Rats go through the post

Rats are hardly the most popular subjects to feature on postage stamps, but one now stars on a commemorative set released to celebrate the work being done on South Georgia Island. The 75p stamp clearly shows a rat gnawing on one of Bell Laboratories' green conservation bait pellets used to rid the islands of millions of rodents that are threatening its seabird populations.

Accompanying the rat are scenes depicting what has transpired since 2007 when the UK-based charity, the South Georgia Heritage Trust (SGHT) and its US counterpart, Friends of South Georgia Island (FOSGI), undertook the monumental task of ridding this once spectacular seabird habitat of rats and mice. With 70% of the rodent-infested areas now baited, the team expects to complete the remaining 30,000 infested hectares in 2015. Once completed, the seabird populations will have increased by an estimated 100 million and the island will once again become the safe haven for wildlife that it was when Captain Cook discovered it back in 1775.



## Rokill raise nearly £2k for charity

When Hampshire-based Rokill Pest Control held their Christmas party at the Norfolk Royale Hotel in Bournemouth, they organised a raffle and auction. This raised £866 which the company then doubled. Thanks



should go to the generous support of their suppliers, notably: Killgerm, PestWest, Roman, Huck, Alliotts, Jones & Sons, Redwood, Rat Pak and the Norfolk Royale Hotel.

The money raised was split between two local charities - Streetwise and the neo-natal intensive care unit at Princess Anne Hospital Southampton. In early February, director Chris Turner (pictured) went to present the cheque and was taken on a tour of the facility by matron Carol Wooldridge.

## He's back! Richard Lunn

Just two years after the sale of his distributor business, SX Environmental Health to P+L Systems, Richard Lunn has announced he is back on the scene. Richard is launching a new professional pest control distribution



business called 1env Solutions, based in the Southend-on-Sea area.

Services such as click-and-collect, email and text notifications of order progress, account log-in facilities and the like will be available. As with the other online traders, product stock levels will be shown online and details of past orders held so 'your favourites' can easily be reordered. But, as Richard explains: "Despite all this modern software, I am still very keen to bring back good old-fashioned service where customers always come first."



## Guess how many? Winners announced

In the last edition of **Pest** (issue 31) we set our readers a quiz. How many cockroaches were there on the single trap featured? Your estimates varied considerably. Give or take the odd roach, when counted by Prof Dini Miller they amounted to 1,300.

Our winner with an estimate of 1,147 was Colin McCook from the pest control section of Bolsover District Council and North East Derbyshire District Council based in Clowne, Derbyshire. Colin now has the task of selecting which items he would like to choose from the Suterra range of products.

The three runners-up who will all soon be receiving a wind-up **Pest** torch are Paul Westgate of Rokill Pest Control in Hampshire, Peter Stringer from Rentokil and Alan McAree from North Lanarkshire Council in Motherwell.



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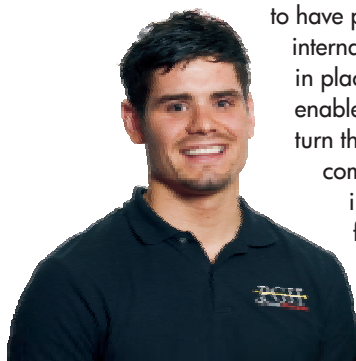
## Peter on stage

Peter Higgs, founder of Surrey-based PGH Pest Control & Prevention, delivered the keynote address 'From Unemployed to Award-winning Employer' at the Growing Your Own Business Conference within The National Franchise Exhibition at the NEC, Birmingham on 15 February.

Peter won the Enterprise Award as part of the Prince's Trust and Samsung Celebrate Success in early 2013. Since then he has undertaken an intensive business course providing him with the knowledge and confidence he needed to succeed.

PGH Pest Control & Prevention now has three full-time members of staff and Peter is planning to take on more employees this year. Within the next five years Peter hopes

to have put more internal systems in place to enable him to turn the company into a franchise.



## Goodnight and goodbye

You realise you are getting old – but hopefully not passed it! – when those around you, those you have known all your professional life in the pest control industry retire. This is very much the case with these two individuals who have been part of the fabric of the UK market for many a year.

### Richard Bevan – a faithful Bristol servant

Many within the industry will have shared a beer and a natter with Richard Bevan who retired from Bristol City Council at the end of March. But reading the details of Richard's career, in his own words, you realise just how much things have changed.

As Richard says: "I joined Bristol City Council in February 1970 as a rat catcher. I was made assistant manager in 1976 and manager in 1984. Back in the 70's & 80's Bristol operated a Disinfecting Station and verminous baths section complete with steam sterilisation. A member of the public suffering from lice, or other vermin, could call at the station and have a free bath to rid them of their companions. For the client this was a big bonus as they got a certificate to say they had been cleansed, allowing them to go the Salvation Army, or other hostels, for a free meal and possibly a bed for the night.

"I worked for Bristol City Council for almost 43 years and during that time thoroughly enjoying all of the roles that I have held. Pest control for 39 years and then in 2010 switching to managing the six large heritage estates, eight cemeteries and two crematoria. The latter role was due to a previous restructuring.

"I would like to add that pest control is my first love, I have been very fortunate to have served the Bristol public and have worked with some fantastic people. Although I am very much looking forward to spending more time with my wife and grandchildren, I know for a while at least I will miss the camaraderie and daily contact with colleagues, but I am sure I will readjust. I will, however, still be an active member of the National Pest Advisory Panel."



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## Killgerm's Raymond Harrop

After 47 years at Killgerm, Raymond Harrop, has decided it is time to retire gracefully on 30 June 2014.

Raymond joined what was the forerunner of Killgerm Chemicals straight from school at the tender age of 17 so was already in post when Jonathan Peck arrived in 1971. Over the years, Raymond worked closely with Jonathan, regularly being promoted to first commercial director in the 1980s and then to joint managing director. In November 2011, he was inducted into the *Pest Control News* Hall of Fame.



Describing his contribution, Rupert Broome, group managing director said: "This is a momentous day for Raymond and for Killgerm. Over the decades, Raymond has been at the heart of the business, through bad times and good and has made an immeasurable contribution. He will be deeply missed."

Raymond is however to become a non-executive director of Killgerm Group Ltd. Stepping into Raymond's shoes for the commercial side of the business is current commercial manager, Paul Wood. Letting Raymond have the last word he said: "I am afraid age waits for no-one and I want to spend some time, whilst I am still relatively fit, with Christine (my wife) doing things that we don't have time to do now." Have fun Raymond!

## Rokill top award

18 February was the date for this year's annual Rokill service meeting held in Bournemouth. Following a fascinating presentation on flies by Prof Moray Anderson from Killgerm, director Chris Turner accompanied by managing director, Alec McQuinn, discussed achievements and plans.

The meeting finished with the annual awards for the teams with prizes and trophies presented for efficiency won by Sean Makepeace, individual sales by Kevin Moore, the team sales Paul Mallett, Kevin Moore, Mark Huntley and the most sought after award for outstanding performance won by Dave Shilling.



Alec McQuinn (left) with Dave Shilling

## New appointment at Bower

Bower Products of Wembley, the manufacturer of EFks, has appointed Mike Brooks as their new business development manager. He will be working alongside Phil Huggins, looking after both established and new customers. Mike has a wealth of experience in pest control, having begun his career in 1980 and has worked his way from a technician, to servicing, sales and to regional management – most recently with Green Compliance.



## Congratulations Graham

Graham Jukes, chief executive of the Chartered Institute of Environmental Health, collected the OBE he was awarded in the New Year's Honours list at Buckingham Palace on 14 March. The award presented to him in the throne room by Prince Charles was in recognition of his services to environmental health in the UK and overseas.



Accompanied at the two-hour ceremony by his brother David, his wife Barbara and their son Harry, Graham

said: "It was a fantastic day and it was lovely to share it with the rest of my family. I have to say I was more nervous about collecting the honour than I have been speaking in front of more than a thousand people."

Each of the 50 recipients on the day waited in line for their few minutes with the heir to the throne. Graham explained: "When my name was called I stepped forward the two paces as instructed, turned to face Prince Charles, bowed and walked to the dias. He congratulated me and we spoke for a few moments about the CIEH position on fracking. He was extremely interested. He then shook my hand and wished me well."

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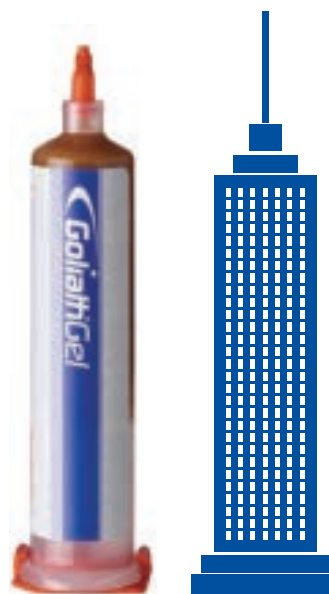
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# Don't underestimate 'people power'

As the famous poet John Donne said in 1624 "No man is an island." The same can be said of the pest control industry we all work within. We overlook public opinion at our peril.

The great British public has been brought up on the anthropomorphised characters of Mole, Badger and Ratty (actually a water rat) from *The Wind in the Willows*. Add to this mix a beautiful iconic bird, the barn owl, which, it is claimed, is in serious decline due to rodenticides – and you are in seriously hot water. A case of double standards maybe, but an emotive cause to rouse public opinion.

In the midst of the creation of the Stewardship proposals for second-generation anticoagulant rodenticides (SGARs – see update below), the Barn Owl Trust launched an online petition calling on the Minister, Mike Penning MP 'to introduce stronger controls on the use of powerful rodent poisons and clear labelling on packaging'. In the e-petition the Trust claimed barn owls were dying\* and by signing you could help save them.

By the time of the Oversight Group meeting in March more than 100,000 people had signed the e-petition and the Barn Owl Trust had secured a meeting with, and intervention from, Mike Penning who is Minister of State for Work & Pensions. His

remit includes the Health & Safety Executive.

It is interesting to note that if an e-petition on any subject that the government is responsible for gets at least 100,000 signatures, it will be considered for debate in the House of Commons. As of early April the number of signatories now stands at over 125,000, so watch this space?

But the UK is not the only country where 'people power' has influence. Take the recent case in California. But, a bit of background first. In the USA the Environmental Protection Agency (EPA) ruled that rodenticide products sold to individual consumers must be in tamper-resistant bait stations and that there should be no retail rodenticides containing brodifacoum, bromadiolone, difethialone and difenacoum. With the exception of Reckitt Benckiser (the manufacturers of d-CON retail rodenticides) all the other manufacturers have fallen into



line. In an unprecedented move, Reckitt Benckiser has used legal tactics to delay EPA's ban on 12 of its products, which remain on sale across the USA.

Not to be deterred an action group known as Raptors Are The Solution (RATS) has successfully lobbied the California Department of Pesticide Regulation such that it announced on 18 March that from 1 July 2014 the d-CON SGAR-containing products will be classified as restricted materials – meaning they will only be available to certified professional pesticide applicators.

\* A survey conducted during the period 1995 to 1997 by the British Trust for Ornithology, in conjunction with the Hawk and Owl Trust, showed there to be about 4,000 breeding pairs of barn owls in the UK at that time. Dr Colin Shawyer, of the Barn Owl Conservation Network has recently forecast that in 2014 between 8,000 and 10,000 pairs of barn owls will attempt to breed – hardly a decline!



## Update on SGAR Stewardship

As previously reported, the Stewardship proposals for the second-generation anticoagulant rodenticides (SGARs) requested by the Health & Safety Executive (HSE) were being prepared ready for presentation to the Oversight Group. This Group consisting of HSE, Defra, Public Health England and joined by Natural England met in York on 4 March 2014. Each sector group (agriculture, gamekeepers, professional pest control and local authorities & suppliers) has developed its own stewardship proposals with the Campaign for Responsible Rodenticide Use (CRRU) as co-ordinator.

Following a period of consultation, the stewardship proposals were to be presented in the expectation that, provided the Oversight Group regarded them as appropriate, implementation would begin immediately. Unfortunately this proved a vain hope. The influence of the Barn Owl Trust (see above) was such that the emphasis had shifted.

The industry remains somewhat tight-lipped as to what went on at the meeting but an official statement made by HSE simply said:

"The group thanked CRRU for its work to date, but agreed that more work is needed to deliver stewardship and monitoring of effects. CRRU was asked to develop proposals further, and we will evaluate this work to ensure controls are robust and fit for purpose."

It would appear from details published on the British Pest Control Association's (BPCA) website that it was HSE's view that the four individual sector groups proposals appeared 'fragmented'. It was made clear by HSE that there will be no official licensing of pest control/rodenticide use from Government and all activities must be industry funded. There was also considerable debate on mechanisms for the delivery of the proposals, point of sale restrictions on professional SGAR products and how monitoring would be undertaken.

Enough said. What is clear is that CRRU has been requested to produce one single document covering all sector groups for presentation to the Oversight Group in June and, if approved, it will be presented for Ministerial approval in September with implementation in October. We can but hope.

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# RSPH ramps-up its RAMPS activities

It's only a year and a half before all users of aluminium phosphide for the control of rats, rabbits and moles must have a certificate to demonstrate that they can use the chemical safely. Nor will users be able to buy the product without a certificate. The cut-off date is 25 November 2015.

The requirement to hold a recognised certificate is all part of the RAMPS UK initiative (The Register of Accredited Metallic Phosphide Standards in the United Kingdom). This important self-regulatory initiative has been established to ensure the continued availability of these useful, but potentially very dangerous, products. With the deadline looming, demand for training is going to be high. The Royal Society for Public Health (RSPH) is one of the organisations which has been working hard to ensure suitable training courses are available and that there are sufficient assessors to examine candidates.

## It's a first

RSPH introduced its own *Level 2 Award in Using Aluminium Phosphide Safely for the Management of Vertebrate Pests* last year and has now reported its first successful candidate to gain a certificate. He is Simon MacSorley of pest management specialist Pe.st. Simon undertook his training at South Gloucestershire-based PestTrain.

Simon commented: "Pe.st has been created as a new pest control franchise company so I was delighted to be the first in the country to obtain the new RSPH qualification."

Richard Burton, head of qualifications development at RSPH commented: "PestTrain is the first centre to gain approval to offer our aluminium phosphide qualification, but the number of centres approved is increasing so we expect to see a large number of candidates coming through."

A key feature of the RSPH qualification is that approved centres can assess their own candidates. The centre's assessments are then subject to external verification by RSPH appointed examiners. Because of this RSPH needs to ensure that assessors in centres are themselves experienced in the use of aluminium phosphide. Would-be assessors have to provide verifiable evidence of having carried out aluminium phosphide treatments in the past, or have an RSPH examiner observe them carrying out a treatment, or attend an assessor training day.



Steve Kershaw of Ecolab gives Jill Peard a helping hand fitting her respirator

## Assessor training day

On 27 March RSPH held its first assessor training day at Harper Adams University in Shropshire. This enabled both classroom training and the use of their grounds for practical activities. Speakers on the day were David Cross of Rentokil and RAMPS, Robin Moss and Paul Hoyes of Killgerm along with Richard Burton of RSPH.

In the morning, classroom sessions covered the qualification itself and its delivery requirements plus the evidence assessors would need to provide as proof to the external verifier that candidates had met the assessment criteria and learning outcomes for the qualification.

As assessment is an important part of the day, all of the delegates were given a specimen candidate script to mark. Delegates were helped with the provision of a marking guide for each of the exam questions. The marks awarded showed good agreement between the trainee markers and also with the original mark given by an RSPH examiner.

After lunch the group kitted-up and set-off outside with their respirators and applicators for some practical work. After a quick



Simon MacSorley, the first technician to pass the new RSPH Award

briefing they split into three groups and headed-off to survey the site and look for evidence of rat and rabbit activity. Others prodded the ground around the more obvious signs of moles with their dibbers to locate mole runs below the surface.

The day finished with the results of the marking exercise and an evaluation of the day. All the delegates found it worthwhile. Jill Peard, divisional training manager for Ecolab commented: "It was an excellent course. The structure of the written exam coupled with the practical assessment provides a robust system that will drive-up professionalism in this area of the industry." Jill attended with three of her technical manager colleagues who will be delivering the required training to Ecolab staff.

The qualification syllabus can be downloaded from the RSPH website, which also explains how prospective centres can apply. Readers interested in future RSPH assessor training days should contact Richard Burton at [rburton@rspsh.org.uk](mailto:rburton@rspsh.org.uk).



The prospective assessors are put through their paces in the field

# London's Black Death

Rats and their fleas not entirely to blame!

The Channel 4 documentary *Return of the Black Death: Secret History* broadcast on 6 April 2014 reported on the 25 skeletons uncovered in London's Charterhouse Square in Farringdon during the construction of London's Crossrail back in March 2013.

The bodies have provided the first evidence of the location of London's second Black Death emergency burial ground established in 1348. The Black Death was the largest pandemic in history, killing millions of people as it swept from central Asia across Europe in the early 14th century. It reached England in 1348 and claimed the lives of up to 60% of the population at the time.

From the skeletons' teeth, scientists have found traces of the DNA of the *Yersinia pestis* bacterium which was responsible for both pneumonic and bubonic plague, confirming the individuals had contact with the deadly disease prior to their death. The



scientists were also able to compare the Black Death strain of bubonic plague with that which was recently responsible for killing 60 people in Madagascar. To their surprise, the 14th century strain was no more virulent than today's disease. The DNA codes were an almost perfect match.

Yet as Dr Tim Brooks, working for Public Health England based at Porton Down, explained in the programme: "For any plague to spread as quickly as the Black Death did it must have been spread human-

to-human via coughs and sneezes (pneumonic plague) rather than simply by rat fleas that bit a sick person and then bit another victim (bubonic plague). In effect it was a perfect storm. People were hungry with weakened resistance, were bitten by the rats and then spread the disease to one another."

Although now controllable with modern antibiotics, another pandemic is possible. A point worth raising when local authorities propose further pest control cut-backs.



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## School saved from seagulls



Working in tandem, the Bio-Acoustic and Hawk Kite systems

The roof of a school in High Wycombe was being repeatedly plagued by attacks from herring gulls. The birds were regularly piercing the seven inflatable pillows that make up the large inflatable roof over the school's main atrium. The pillows are made of ethylene tetrafluoroethylene (ETFE), a fluorine-based plastic as used in the domes of the Eden Project in Cornwall. Once pierced the roof leaked and repairs were running into thousands of pounds with no apparent solution to prevent future damage.

At this point Cressex Community School sought help from Littlehampton-based PestFix. After a consultation with the school and the roof's manufacturer, Novum Structures, a plan was put forward.

The solution comprised the use of a Scarecrow Bio-Acoustic Systems' One Shot bio-acoustic bird dispersal system, similar to the ones used at all major UK international airports. The system broadcasts a 90 second herring gull distress call at random intervals causing panic and anxiety amongst the gulls such that they leave the roof.

This was backed up by the use of visual deterrents in the form of the Hawk Kite system – a life-like self-launching kite in the silhouette of a bird of prey that ducks and weaves in the wind from a 7m tall carbon fibre mast on the end of a 5m long tether.

Since the system's installation the school's management team hasn't reported a single sighting of a seagull on the roof and the roof manufacturer has been able to carry-out the necessary pillow replacements, safe in the knowledge that they will remain undamaged by the gulls.

## Woman sues after seagull attack

In a case that sounds like something out of Alfred Hitchcock's famous film *The Birds*, a woman who claims she was injured when a seagull swooped at her during her lunch-break is suing the owners (Riverside Inverclyde) of the building where she worked.

Cathie Kelly, 59, from Glasgow, said she stumbled on steps as she tried to escape the 'terrifying' dive-bombing bird outside the Ladyburn business centre in Greenock, Scotland. Mrs Kelly has raised a £30,000 damages action at the Court of Session in Edinburgh. Here's a new word for our readers – it's a case of laridaphobia

– the intense fear of seagulls.



# General and Class Licences consultation underway

On 24 February 2014, Natural England (NE) published a range of proposals on changes in England's General and Class licences. Several of these affect pest control activities. Unfortunately for NE one aspect has been picked-up (relating to bird crop pests, such as pigeons and crows) and misleading headlines along the lines of 'shoo before you shoot' have appeared in newspapers and trade magazines up and down the country.

Setting the record straight, NE senior specialist Paul Butt commented on the 48-page consultation document explaining that: "NE is seeking to strike the right balance between the protection and conservation of species and the need for control, or other measures, that would otherwise be illegal or prohibited by legislation. An important aspect is obtaining the views and feedback of those who take action permitted by General and Class licences.

"The experience of pest controllers who have to tackle situations where conflicts between animal species, business and other activities, plays a vital part in helping to ensure that the licences granted meet the requirements placed on regulators, such as NE, who also have to implement the derogations allowed by European Directives.

"The ability for pest controllers to respond to urgent problems, or to undertake measures on a regular basis, without the requirement to make an individual application will be a good step forward. This reduces the inevitable delays that arise whilst applications are assessed and processed, so can significantly improve efficiency and reduce the burden of bureaucracy," concluded Paul.

In the consultation document areas which involve the pest control industry and are worthy of consideration/comment include:

## General areas

- Of the General licences that are issued, are these easy to understand, interpret and implement? Do they contain adequate information and guidance and are there any aspects that could be improved or modified?

- Identify aspects that need to be changed in respect of existing licences and those that should be considered for the future.

## Specific proposals

- Introducing Class licences for the killing and taking of herring gulls and lesser black-backed gulls for the purposes of preserving public health and public safety that are currently covered by General and Individual licences. (Page 13 in the Consultation document)

Will this achieve the aim of simplifying the licensing system for users whilst providing the information required?

- In respect of the Class licence for food premises. It is proposed that the pied wagtail, blue tit, great tit, duncock and song thrush be added to the list of species that can be trapped and released unharmed. (Page 18)



© Ray Kennedy (rspb-images.com)

This will bring together this Class licence and the Organisational licence that is currently issued to a number of supermarket chains. What are your views on making these changes and will the addition of these species assist with the often urgent requests to remove birds from food premises?

- It is proposed to add a Code of Practice (CoP) on the live trapping of birds under General or Class licences that will provide more advice and reduce the number of licence conditions. (Page 19)

Comments are welcomed on the content of this CoP. Is this approach a progressive step that will improve the understanding and operation of these licences?

## Now's the time to read and comment

The full Consultation document can be downloaded from the NE website at [www.naturalengland.org.uk/ourwork/regulation/wildlife/licences/wildlifelicencingconsultation.aspx](http://www.naturalengland.org.uk/ourwork/regulation/wildlife/licences/wildlifelicencingconsultation.aspx) Rather than moan about things you may not like when these new requirements come into force – now is the moment for you to voice your opinions. The consultation period closes on 19 May 2014. Email your views to [wildlife.consultation@naturalengland.org.uk](mailto:wildlife.consultation@naturalengland.org.uk)

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# Don't be boxed in!

## New developments in the use of electronic fly killers



How often in life do we take things for granted? Something has always been done that way and that's the way it stays. A chance conversation at Eurocido with Netherlands-based Ronald van Lierop of Alcochem Hygiene revealed that when it comes to electronic flykillers (EFKs) this company is definitely 'thinking outside the box'. By doing so a more efficient and cost-saving technology has been developed as *Pest* editor, Frances McKim, discovers.

In pest control we all know that flying insects spread diseases and so must be controlled, especially if you are dealing with sensitive areas, such as food processing and packaging areas.

One of the main methods of control is the installation and maintenance of electronic fly killers (EFKs) and these now play a staple part of many pest controllers' businesses.

### Straightforward theory

The theory is relatively straightforward. To eliminate a flying insect; first the insect must be attracted (by the light), once attracted they must be killed (by means of an electronic killing grid or glue board) and then the body must be dealt with by means of a catch-tray as your customer is not going to thank you if dead bodies, or fragments thereof, litter the vicinity or become airborne.

EFKs have now been in existence for over 100 years (see box on page 16) yet the basic principles of how they work has altered little.

### Improvements

Admittedly, there has been considerable improvement in the use of lures, the introduction of glue boards to capture and retain the dead insects, along with safety improvements and, of course,

considerable visual design innovations.

Essentially, however, pest controllers put up the machine, insert the tubes, which run continually for 24 hours a day and, then, simply change the tubes annually.



Alcochem's Ronald van Lierop

Technically an EFK consists of one, or more, fluorescent tubes which provide a UV-A light output of around 365nm to attract the flying insects. The tubes require a starter to launch the arc discharge as well as a ballast to stabilise the current through the lamp.

To this day the majority of commercially available EFKs use a magnetic ballast which commonly gets very warm (actually offering the flies an inappropriate attractant) and it can consume anything between 15-25% of the power supplied, so by no means energy efficient.

### Unwanted heat

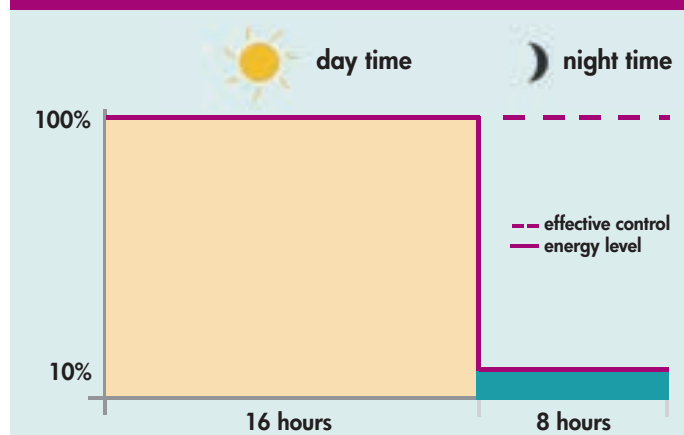
Also far from energy efficient is the fluorescent tube itself. Fifteen watt tubes are the unofficial standard for use in EFKs. Of the power they consume, between 60-67% produces unwanted heat (that's two-thirds), with the remaining one-third producing light. Of the remaining five watts, only just over two watts produces the required UV-A light, with the remaining three watts going into undesired visible light.

The annual running cost of such an EFK unit, based on a four x15 watt tubes in the unit can be calculated. This unit requires 72 watts per hour so over a whole year (8,760 hours) it will use 630,720 watts. At current UK rates for electricity (£0.16 per kWh), a single unit would cost around £100 per year to run. Multiplied-up by the number of units in any one establishment, the cost becomes significant.

Whilst in the longer-term, EFKs fitted with significantly



### EFK output during day and night hours



more efficient light emitting diodes (UV-A LEDs) will be the way forward, it is likely to be at least five years before a reliable and affordable EFK with LEDs is available.

Thinking outside the box

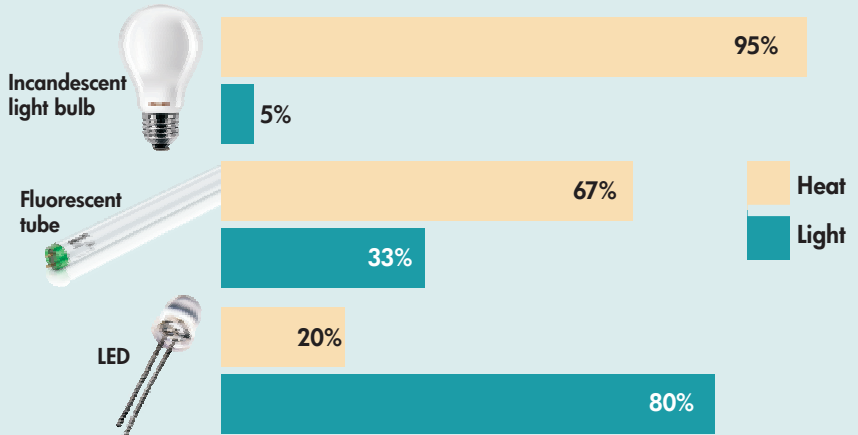
With this predicted delay in developing a more cost effective and 'greener' fly killing machine, Alcochem felt the time was right to challenge some of the accepted standards – to think 'outside the box.'

As Ronald van Lierop, in charge of Alcochem Hygiene's activities explains: "Just because EFKs have always operated in a certain manner, it doesn't mean this is the only way. We decided to examine two particular variables. Could energy be saved by optimising the design of the ballast?"

"And second, EFKs have traditionally always been run at full output for 24 hours a day, seven days a week. During the daylight hours, when flies are active, this is what is needed to achieve insect attraction over a typical radius of 10-12 metres around the unit. But night-time insects are far more light sensitive and do not require such a powerful output.

Relative lamp efficiency

The efficiency of light production varies by type of lamp (bulb) employed.



So why run your machine at full output when it's not needed? If you can reduce output and still maintain full efficacy you can save on the electricity consumed."

With these objectives in mind, researchers based at the Alcochem facilities in the Netherlands and in China set-about this challenge. Night-time flying insects, such as the Indian meal moth (*Plodia interpunctella*), are far more sensitive to UV-A and require a far smaller stimulus – 10% being sufficient – to attract them as the table, left, illustrates. (Figure 1)

Figure 1: Fly control at 100% and 10% power. Summary of test results

**Test species:** Indian meal moth (*Plodia interpunctella*).  
**Site conditions:** Wind speed 0.2 to 0.3 m/sec; Humidity 64% RH; Temperature 25.8 to 26°C; Light intensity in night mode: 400 Lux. Units were operated for either one or two hours, between 22.00 and 06.00.

Unit and power output	Average kill rate %	Range %
EFK i-trap 125 at 100% light output	62	47 to 74
EFK i-trap 125 at 10% light output	59	47 to 72

Conclusion:

Both power outputs resulted in almost identical kill rates.



Night-time insects are far more light sensitive. The timer allows you to reduce the power overnight and still maintain efficacy

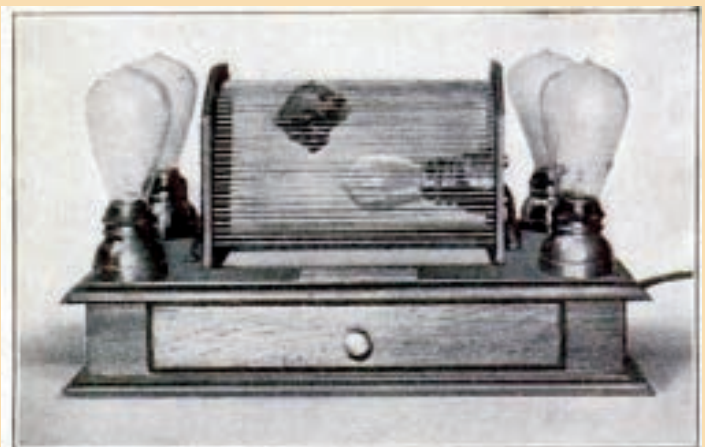
EFKs: a hundred year history

The first published reference to what has become an electronic fly killer was in *Popular Mechanic* magazine in October 1911.

It contained all the elements we still use today but at the time was judged as too expensive and impractical. Designed by two unnamed men from Denver, USA it consisted of five incandescent light bulbs, a grid with wires spaced 3.17 mm apart using a voltage of 450 volts. Users were supposed to bait the interior with meat.

The first commercial design was patented in the USA in 1934 by William F Folmer and Harrison L Chapin.

Separately, Dr W B Herms, a professor of parasitology at the University of California had been working on large commercial insect traps for over 20 years for protection of California's important fruit industry. In 1934 he introduced the electronic insect killer that became the model for all future bug zappers.



The Flies are Supposed to be Attracted by Bait within the Cage and be Electrocuted When They Attempt to Get at it



A typical night species: *Plodia interpunctella*



A typical day species: *Musca domestica*



Having established that night-time insects would be attracted at this reduced light output, extensive testing of both the ballast and lamp was required to ensure that the dimmed lamps would compromise neither start-up characteristics, lamp output, nor lamp life. This work was undertaken in the laboratories of Philips, as all such Alcochem EFKs use Master Actinic BL lamps.

#### Field trials

Having established technical feasibility, Alcochem conducted extensive field trials in commercial situations for the past year to check efficacy with night-time insects.

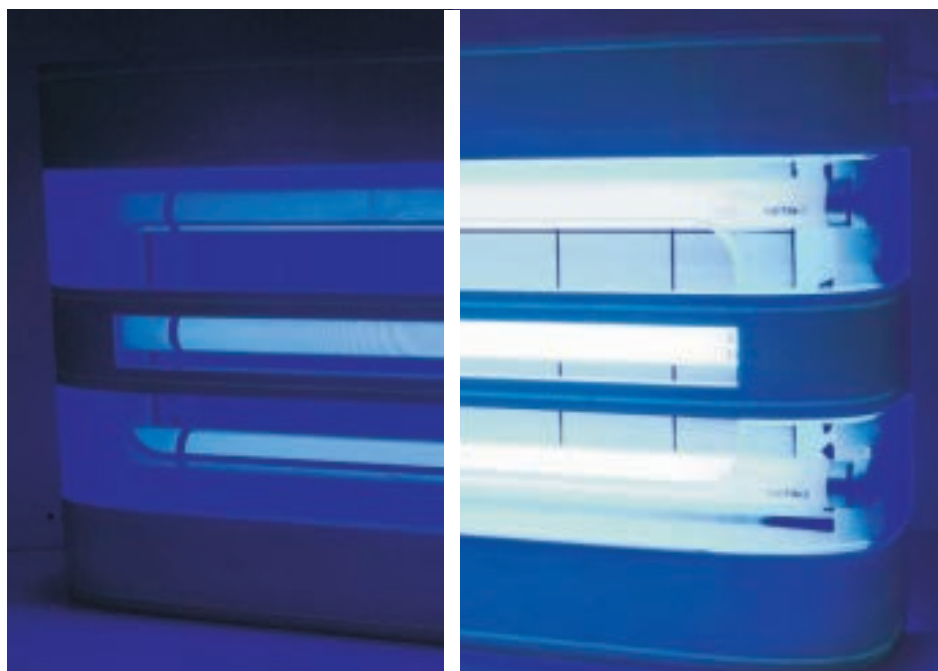
By switching the ballast within the EFK from a magnetic type to an electron version (christened by Alcochem, an eco-ballast), not only could the power consumed by the ballast be reduced by 90%, but the starter is now no longer required and less heat is generated. But probably the greatest advantage is that the eco-ballast means the output of the lamp can be reduced for the night hours with the addition of a programmable timer the unit can be set to dim to 10% output at night.

#### So what does this mean?

As seen in the calculation in Figure 2 right, when the reduced power required by the eco-ballast is added to the 90% output reduction at night (in this example for eight hours) a total of 1,152 watts are used per day.

If the power requirements of a traditional magnetic ballast are compared with those of an eco-ballast savings of 210,240 watts (33%) over one year can be achieved – equivalent to nearly £35 on one machine alone (see Figure 3 alongside). Industrial clients are likely to have several installed – say ten – so a saving of £350 per annum is far from inconsiderable.

Summing-up these developments Ronald said: “With these savings the cost of the machine itself can be paid-back within three to five years. Surely a win-win situation.”



The new Eco-ballast technology offers significant energy and therefore cost savings by switching from full power during the day (right) to low power at night

### Figure 2 : Eco-ballast power consumption

Unit: 4x15 watt	1 unit	10 units
Power lamps per day-hour	60 watt	600 watt
Power lamps per night-hour	6 watt	60 watt
Power ballast per hour (day & night)	6 watt	660 watt
Day insects (16 hours x 100%)	1,056 watt	10,560 watt
Night insects (8 hours x 10%)	96 watt	960 watt
<b>Total per 24 hours</b>	<b>1,152 watt</b>	<b>11,520 watt</b>
<b>Total per year (8,760 hours)</b>	<b>420,480 watt</b>	<b>4,204,800 watt</b>

### Figure 3: Eco-ballast advantage

Unit: 4x15 watt	1 unit	10 units
Traditional ballast	630,720 watt	6,307,200 watt
Eco-ballast	420,480 watt	4,204,800 watt
Savings (watt)	210,240 watt	2,102,400 watt
<b>Savings (%)</b>	<b>33%</b>	<b>33%</b>
<b>Savings (1 kWh = £0.16)</b>	<b>£33.60/year</b>	<b>£336/year</b>

### Availability of EFKs with eco-ballast technology

Two EFK machines utilising eco-ballast technology are being manufactured by Alcochem – the Eco-Trap 2 and the Eco-Trap 3 – and these are being launched across Europe by their distributors.

As **Pest** went to press, however, arrangements for the UK were still under discussion.

# A good year for ants?



Clive Boase – mis-identification is costly

## Identifying the species is key to control

This year's warm weather has already led to a few black ant call-outs. However, as April and May progress, the traditional ant season will get into full swing as populations grow and the nests get bigger. As we enter this season it is important to remember that black ants are not the only species around at this time of year. So, when treating infestations, there are a number of factors that need to be considered.

"The primary concern when controlling ants is identifying the species you're faced with," says Clive Boase of the Pest Management Consultancy.

"There are a number of different species in the UK now, some are more common than others. And they do require different treatments."

He explains that there are some ants where baits, (or gels as they're often called) are really the only way forward. However, there are other ants who, given their harbourage, or feeding habits, will be more susceptible to residual sprays.

He adds that in order to utilise the most effective treatment identification is really important, but it's not easy. "Ants are obviously small and, normally, the particular physical characteristics of individual ants are hard to see with the naked eye."

Continuing, Clive points out that mistaken identity can be costly:

"One example I can think of is when an infestation of ghost ants was mistakenly identified as Pharaoh's ants and a treatment was subsequently applied. This proved ineffective and resulted in significant labour and product costs, as well as the aggravation of having to repeat the treatment.

"We don't really have a comprehensive list that compares all of the different ant treatments. The decision about which product, and which formulation to use, relies almost purely on a pest controller's professional knowledge and previous experience."

Species identification can be a challenge, but Clive hopes that as a general rule, most professional pest controllers should be able to tell the difference between the main four species currently in the UK.

These are:

- The black ant (*Lasius niger*)
- The Pharaoh's ant (*Monomorium pharaonis*)
- The ghost ant (*Tapinoma melanocephalum*)
- The Rogers ant (*Hypoponera punctatissima*)

"If pest controllers can be confident in identifying those four and understanding which treatment works best, then the challenge will largely be overcome," he adds.

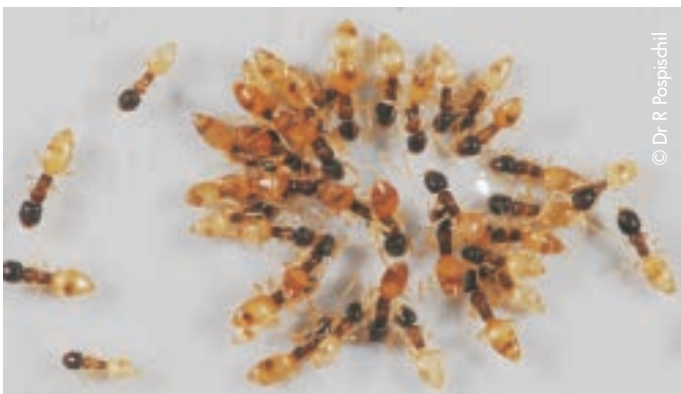
### Understand behaviour

An understanding of how the species behaves, as well as a practical knowledge of their habitat structure will help inform product choice.

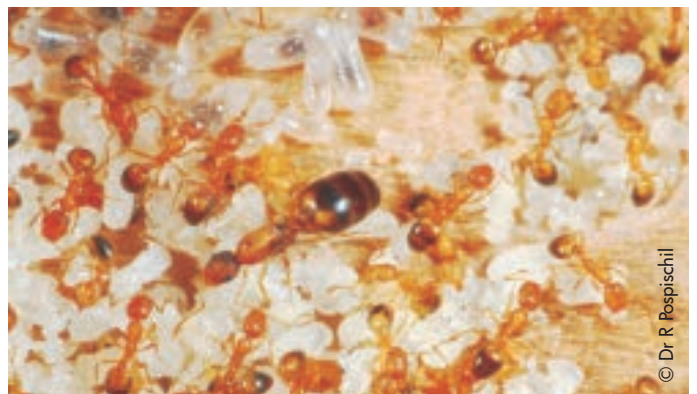
Clive notes that a classic example is with Pharaoh's ants. "In these cases, the use of a residual spray may well control the workers, however the nest will be unharmed. This is because nests are usually very well concealed within the building. If the queen survives, so will the population."

That said, there are other species where a residual spray may well be the way forward. The Rogers ant can be found in parts of the country and is considered a particular pest due to its tendency to fly indoors and sting. Clive points out that this ant only feeds on live food and therefore isn't particularly interested in baits. "In scenarios where this species needs to be controlled, a residual spray like Bayer's Ficam W would be the most effective option."

Clive explains that if you consider a spectrum with Pharaoh's ants at one end where you'd have to use a bait, and Rogers ants at the other where you can only use a spray – falling somewhere in the



The ghost ant gets its name from its transparent looking legs and abdomen



People may think Pharaoh's ants are only a late autumn and winter problem but actually they are problematic all year



Rogers ant can be a particular pest due to its tendency to fly indoors and sting

middle is the black ant. This is the UK's most common ant species and the one that pest controllers get called out for most frequently.

"This species will take baits quite readily and that's a good way to control them. They are also quite susceptible to residual sprays too. Their nests are usually shallow and if they're accessible, you can get equally good results with a spray."

The decision on which product to use, also falls on where the pest controller is treating the infestation. "Residual sprays can be vulnerable to the weather, so normally give best results when used indoors," says Clive. "However if you need to treat ant nests around the external footings of buildings, then gel bait like Bayer's Maxforce Quantum, protected in a tamper-resistant station, is a more reliable option."

Clive finds it to be particularly palatable to black ants and describes how it can be applied either directly into cracks and crevices in and around the building, or, if treating away from a building, it can be placed in an ant bait station.

"Either way, the ants will find it, ingest it and carry it back to the nests. That's the beauty of the Maxforce gel baits, they will eradicate the queen and nest too."

### Practical considerations

In a campaign against ant infestation, there are also practical and logistical considerations that come into play. Clive believes that if a pest controller is treating a large indoor area, a spray may well be considered quicker and less awkward, rather than having to search the whole area on hands and knees for little entry points and ant trails in which to place bait.

While the native black ant tends to feature between March and June, other species tend to be less seasonal and pest controllers may get call-outs at almost any time of the year.

"There's a slight misconception that Pharaoh's ants are a late autumn and winter problem due to being 'woken up' by the ignition of central heating systems," says Clive. "While this may be true, the reality is that the natural summer heat will also generate activity, as the fabric of the building naturally absorbs the summer warmth. When you look at the records, you'll see that Pharaoh's ant call-outs occur throughout the summer, into the autumn and winter and even into the following spring."

The final consideration when it comes to treatment selection is the customer's needs.

"This usually takes the form of how quickly they want the problem dealt with," says Clive who admits: "Bait products are designed to



Pest controllers get called out most frequently to treat black ants

have a bit of a 'lag' in terms of kill speed. The reason being that the effectiveness of gel baits relies on the active being taken back to the nest and passed on to the queen. If the ant keels over as soon as it's ingested the gel, it won't have a chance to distribute that active amongst the nest and the population will survive."

Bayer's, Alan Morris, explains how this balance has been finely tuned in Bayer's Maxforce Quantum: "A significant reduction in ant activity can be expected within seven days after treatment and colony elimination can be expected within weeks (this is also species dependant).

"We've formulated Maxforce in a way that will significantly reduce activity quickly, but in a controlled fashion and allow pest controllers to leave, safe in the knowledge that the demise of the colony will follow, in only a matter of weeks. It is important also to mention at this stage that in the first few days an increase in activity has been witnessed showing the palatability of the Maxforce gels bait matrix.

"In most cases the use of a gel bait is fine, however there may be a few scenarios, such as infestations in hospitals where the customer needs a faster kill time. In these cases, a residual spray may be preferred because the problem could be controlled within hours," concludes Alan.

These are just a few examples of where the customer's requirements will dictate the product of choice.

Clive summarises by saying: "When treating ants there's no exact science and there's not much in the way of guidance. However the analysis of ant species and their particular behaviour/feeding characteristics, seasonality, location of nest coupled with a customer's requirements, should clarify the best treatment to use in order to maintain maximum control."





Russell IPM directors, Diana and Shakir Al-Zaidi

## Russell IPM today

- Russell IPM, is the leading manufacturer of pheromone-based insect monitoring and control systems and one of the largest in Europe.
- The company's headquarters and main manufacturing site is on Deeside, where most of the 35 employees are based. There are also offices in Spain, Morocco, Algeria, Jordan, Iraq and Bangladesh.
- Today exports go to countries as far afield as Australia and Argentina.
- Turnover is around £5 million.
- The emphasis is on environment friendly solutions with products not just for professional pest control but also agriculture. Indeed recently, sales to agriculture have exceeded those for public health protection.
- Key products for pest controllers include: Dismate, the Xlure range and Safestore for stored product insects; the PR range of traps for cockroach monitoring; the Maxify traps, the Protakol glue board range and the WaspPro trap targetting flying insects; and, for rodents, the rat and mouse lure, bait boxes and glue board products.

# Made in Wales!

## via Baghdad, Newcastle & Imperial College

Pheromone manufacturer Russell IPM has just moved into impressive new premises on the Deeside Industrial Park, having completely outgrown its old site, just round the corner. But what's made this manufacturing business so successful and how come it's based in North Wales? *Pest* traces the company's fascinating origins from the back streets of Baghdad to the multi-million pound business we see today.

Visit the extensive new premises and you cannot fail to be impressed. All the more so when you realise that this successful company's origins go back to a tiny laboratory in Imperial College, London in the mid 1980s. This was where founder and managing director of Russell IPM, Shakir Al-Zaidi, first developed an interest in pheromones. It was also where he first learnt the value of the phrase 'follow the money.'

To understand what makes Russell IPM tick it is important to explain more about Shakir. Whilst not exactly a 'rags to riches' story, Shakir, who is originally from Iraq, did have a spell teaching chemistry in the back streets of Baghdad. "That was the deal in those days," he explains. "After graduating from university, I had to spend time teaching. This was followed by military service, before, finally, I could indulge in my passion for research," he adds.

It was this passion that brought him to the UK, to Newcastle University to spend four years researching derivatives of penicillin, followed by three at Sussex University investigating folic acid and cancer, before arriving at Imperial College.

All this took place during the time Saddam Hussein was in power and, suffice to say, that the young Shakir hadn't seen eye-to-eye with the authorities in Iraq. Consequently, he was unable to return to his homeland until after the fall of the Hussein regime in 2003.

But, back to Imperial College and that small lab. It was whilst working at Imperial that Shakir attended a lecture by Dr David Hall of the Tropical Research & Development Institute. Dr Hall was researching the cocoa pod borer and had identified a pheromone to attract and trap it but had not been able to scale-up the process. This interested the Imperial team.

As Shakir describes it: "It was actually a pathetic looking molecule and for any self-respecting young chemist, a walk in the park to synthesise it. We did a deal and made 100 gms for which we charged him £200 a gram – a decent price, we thought, and, gram for gram, significantly more than gold at the time."

However, it wasn't long before Shakir learnt that to produce the formulated product, the pheromone was diluted and sold in small vials for 60p a time. From every gram the formulator was making £1,200. Now the businessman in Shakir kicked in. Time to follow the money!



A huge variety of raw materials have to be held in stock. The spacious new warehouse facility sited alongside the production area is making life much easier

## The way we do things round here

Spend time with the Russell IPM team and you will soon be swept up in their enthusiasm. It is also immediately clear that the driving force is innovation, based on a deep understanding of the science but never science for science sake. A practical solution is the goal.

It is also apparent that money is not the main motivator. Undoubtedly, should Shakir want to, he could find a venture capitalist who would pay a lot for this business, but that's definitely not on the cards. Although he doesn't rule out the possibility of a future merger with another like minded business, but only if it brought value.

And there's a real sense of team spirit. Shakir and Diana are genuinely proud to say that they have never laid anyone off. "We've had Christmas's where we couldn't pay ourselves – December can be a very difficult month with all those holidays, nothing leaving the factory and no let up in the overheads!" Unsurprisingly this attitude has bred a great deal of loyalty with around 80% of employees having been with the company for more than ten years. There's a real family spirit too, with plenty of examples of family members working together.

Training and development is also seen as vital. Production manager Kathy Fennah is a good example. She arrived as a 17 year old. Her potential was spotted and she was encouraged and supported financially gaining her chemistry degree through day release. Having a clearly very capable young woman in charge of production also says a lot about how this company does business. And Kathy is by no means the only employee to benefit from this approach. "We will always try to support relevant training," says Diana.

And they keep their feet firmly on the ground. Diana is happy to roll-up her sleeves and work on the shop floor, if needs be. In the early days there have been plenty of times when she not only sold the product, but made it, packed it and delivered it. Shakir also



Shakir with Nayem Hassan R&D manager and production manager, Kathy Fennah

loves nothing better than to get into his lab to use his chemistry skills to develop new products.

As Diana explains: "We staff up so that if we are busy our staff are offered overtime and that means they can benefit from the good times too." Team work definitely pays dividends.

So too does a bit of lateral thinking. For example, back in the 1980s standard issue insect traps contained a cylinder of pheromone which had to be changed every six weeks. But the food industry wasn't prepared to pay for so many visits.

Russell spotted the opportunity and developed a pheromone container that only needs to be changed every three months. But going the extra mile, these were also colour coded – a different colour for each three month season, making the auditors' job that much easier.

In 1985 Russell IPM was formed with the goal of synthesising pheromones and other chemical and pharmaceutical intermediates but also, importantly, of formulating products and adding value. The idea worked well. The students got something out of it and the university got a contribution towards its overheads.



The team leader measures out the necessary ingredients ready to formulate a pheromone

Things could have remained pretty small scale but, in 1987, for family reasons, Shakir had to move to Chester. This forced a re-think. The bonus was that he could now look to grow the end-product part of the business – the low-tech bit – leaving the university, for the time being, with the high-tech synthesis. Armed with a £1,000 grant from the Government Enterprise Scheme and



Visual inspection of Xlure MST cartridges

a £5,000 loan from the Shell Foundation, he found a 1000 ft<sup>2</sup> premises in the city and began production.

The factory grew. By 1995, it was occupying 2,000 ft<sup>2</sup>. But the pressure for housing eventually forced a move. The Deeside Industrial Park, just over the border in Wales, was an obvious choice. A 5,000 ft<sup>2</sup> unit was leased and a 1,000 ft<sup>2</sup> office added. By 2007/08, more space was needed and, fortunately, 5,000 ft<sup>2</sup> became available, next door. Another site was taken for storage and this part of the estate became known as the Russell roundabout!

"It was clear we needed a permanent, bigger home," explains Shakir. "But we didn't want to continue renting. We needed something we could tailor to our needs. We were stuck for three years, during which time the staff were superb. Working round problems, such as having to store specialist plant offsite and keep on setting it up and taking it down to meet production demand.

"We had almost given up hope of ▶▶▶



Despite all the high-tech machinery, there's still some hand finishing to be done

finding something locally when, what was a very dilapidated building came up. It had previously been occupied by an engineering firm. It was 25,000 ft<sup>2</sup> with 25,000 ft<sup>2</sup> of land next door for expansion. It was in an horrendous state. It looked like mission impossible, but we decided to take it."

It is now the company's brand new home – well its main home. The agricultural side of the business is booming so much that further manufacturing premises are already required. Deeside will remain the production site for all pest control products and all pheromones and glue-based formulations.

### The move into pest control

By 1990 the business, which at that time was entirely based on the agricultural market, was doing well. But it was very seasonal. "February, March and April were busy months," explains Shakir. "But then, there was nothing. We first began to diversify by moving into the southern hemisphere, but we were really looking for something outside agriculture. This is where pest control came in. Its great benefit was that it was year-round business."

As part of the strategy to break into the pest control sector Shakir hired Diana, later to become his co-director and Mrs Al-Zaidi.

Breaking into pest control brought very different challenges and it has been Diana who has built the foundations for today's success. She has put her personal mark on the development of the Russell IPM pest control business and says: "It is our genuine desire to put our customers' interests first. This, I believe, is the basis for our success. Our relationship with customers is, and always has been, at a personal as well as a business level.

"In the UK there was a lot of loyalty among the distributors to our biggest competitor so we decided we'd have to sell direct. Things are different today with direct sales targeted at the larger users, but we still have some small direct business from those early days."

Products are now sold across Europe via the big distributors. Getting into the USA market was also a long haul. It took ten years, but, today, through J F Oakes, it's a big market

for Russell IPM. Jim Oakes has also contributed to product development. His customers wanted a beetle trap that would monitor all the main species.

Shakir explains: "This resulted in the XLure MST traps for all stored product insects. A further development was to combat the waste involved in throwing away the basic trap every time a new pheromone lure was needed. We developed a cartridge containing all the ingredients. This can be clipped straight into the bottom of the old trap. From its launch it took off in the US market. So we got to thinking again. What about the flying insects? XLure RTU was the result. Simple to use, just zip it open and hang. No messy mixing required!"

These two products changed the nature of insects monitoring in the food industry. They first became famous in the US, but are now made in Wales and exported globally.

### Finally, where did that name Russell come from?

Simple really, when the company was first set up Shakir was living in London and his first office was just off Russell Square. Russell Square is named after Bertrand Russell, the British philosopher, mathematician and liberal thinker, so who better to name the company after.

One of the many Bertrand Russell quotes seems particularly appropriate to the Russell story: "The world is full of magical things patiently waiting for our wits to grow sharper." The team at Russell IPM are busy sharpening their wits to make sure they find them.

### Awards and charitable work

Russell IPM is proud to hold two Queens Awards (for International Trade 2011 and for Innovation 2012). "It was the monumental efforts of all the team which resulted in these achievements. The Awards have made us all proud and cemented the: 'We Can Do Better' culture within the company," explained Diana Al-Zaidi. Diana is pictured right with Shakir and the Vice Lord-Lieutenant of Clwyd, Mr Lloyd FitzHugh who presented the second award.

Diana also leads the Russell IPM Foundation. This charitable organisation was founded nearly three years ago to raise funds for Leukaemia and Lymphoma Research. Fund raising events are organised by the staff, their families and friends. "As well as raising vital funds to support research, it has developed a real community spirit among everyone in the company," she says. Every £1 raised is matched by the company and so far, the foundation has raised almost £69,000 toward its target of £100,000. You too can donate at

[www.justgiving.com/russellipm](http://www.justgiving.com/russellipm)





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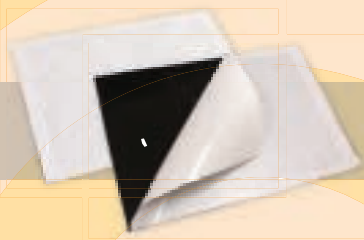
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# Lessons from New Zealand Trapping



With recent changes in the way that rodenticides can be used in open countryside and the continuing need to control rats and other mammalian pests, Martin Edwards, a lecturer in game and wildlife management from Sparsholt College in Hampshire, set-off half-way around the world to see if we could learn a thing or two from our antipodean cousins. Here he provides the background to his study visit and details some of the advances in trapping techniques that he witnessed whilst he was there.

## Visit funding

Martin Edwards' one month tour of sites across New Zealand was made possible with a generous award from the Farmers Club Charitable Trust  
[www.thefarmersclub.com/Awards](http://www.thefarmersclub.com/Awards)

The Spring Traps Approval Order (STAO 2012) lists a total of 28 kill traps that are currently legal to use for mammalian pests in the UK. This list includes historical traps that were first approved when the Gin trap was banned in the 1954 Pest Act, such as the Juby, Lloyd, Imbra and Sawyer; none of which are available for sale today.

It also includes the ever-popular Fenn traps and their clones, which are by far the most favoured by gamekeepers across the country. Incidentally the Fenn trap was approved at the same time as the aforementioned traps, so is 60 year-old technology.

More recently, we have seen a range of new traps added to the STAO that have been developed in other countries. For example, there is the Kania from Canada as well as the Magnum bodygrips and WCS Tube trap from the USA.

It has been relatively easy to make these additions as the EU has signed-up to the International Humane Trapping Standards. These basically mean that if a trap meets these international standards then it can be used in the EU for the specific species that it has been tested on. Therefore, the STAO not only lists approved traps but also details which target species each trap is approved for.

### Recent developments in New Zealand

So what has this got to do with New Zealand (NZ)?

Well there have been two recent additions to the STAO that have been developed in NZ – they are the Nooski rat and mouse traps ►►►

*Much of the New Zealand Department of Conservation's trapping work has to be done in very steep terrain clothed in the thickest forest, where there are few, if any, footpaths, let alone any vehicle access*



© Brisbane City Council

A native of Australia, in New Zealand, the common brushtail possum (*Trichosurus vulpecula*) is an introduced species and host for the highly contagious bovine TB

it developed over millions of years in isolation from the rest of the world such that they have endemic species that are not found anywhere else on the planet. This includes flightless birds like the iconic kiwi, but also songbirds like the yellowhead and the only two native species of land mammals – the long-tailed and short-tailed bats.

### Introduced species

However, in the 1800s when European settlers arrived in NZ they introduced a wide range of birds and mammals from Europe and elsewhere. For example, they introduced rabbits for their fur and meat.

Unfortunately, as there were no natural predators of rabbits in NZ their population exploded and they threatened the crops of the early settlers – so ferrets, stoats and weasels (mustelids) were introduced to control the rabbits!

Flightless birds proved easier prey than rabbits, so these mustelids soon turned their attention to the native fauna to the extent that DOC now list these non-native mammals as the single biggest threat to the country's biodiversity.

### Difficult terrain

DOC manages nearly 30% of the landmass of NZ and most of this is native forest which requires very little, if any, habitat management. Therefore the majority of their work is controlling these alien species – hence the development of the DOC traps.

What is difficult to appreciate about NZ before you go is the sheer scale of the task. Much of this work has to be done in very steep terrain which is clothed in the thickest forest, through which there are very few, if any, footpaths, let alone vehicular tracks.

Because of this, some control, especially of possums for TB, is done with aerial application of poisons – carrots laced with the pesticide, 1080 (sodium monofluoroacetate). However, this is extremely toxic to anything that eats the carrots and is also deadly to carcass scavengers, particularly dogs.

For this reason, the DOC is moving away from aerial control and opting for ground control solutions where traps are set in grid patterns using GPS, between 100-200m apart.

Each area will have thousands of these traps set all year round and will employ a team of trappers whose sole job is to check the traps, remove any kills and replace the rabbit meat/egg that is used as a lure.

The sheer magnitude of the operation



([www.nooski.com](http://www.nooski.com)) and the DOC series of spring traps ([www.predatortraps.com/traps](http://www.predatortraps.com/traps))

The Nooski is an ingenious trap that is designed to place an elasticated rubber ring over the neck of the rat and thus choke the rat to death – if you don't believe me, type Nooski into Google and watch the promotional videos!

The DOC traps were developed by the Department of Conservation (DOC) in NZ for controlling rats, stoats, weasels and feral ferrets. To understand why a conservation organisation would want to control pest species, you need to know a little about the ecology of NZ.

The flora and fauna of NZ is unique in that



DOC traps are being used extensively for possum control in New Zealand instead of the aerial distribution of poisoned carrots

precludes daily checks on these traps and the shortest period between checks is usually four weeks! This is one advantage of the DOC trap – it is designed to instantly kill what it catches and there is no chance of any mis-catching of an animal by its leg for example. Therefore, there are no humanitarian issues with leaving a trap unchecked for long periods. However, once the trap has caught, it is out of service so the longer between checks, the more pests will be able to avoid capture.

A relatively simple solution to this is to set two traps in a single box and so a large field trial of these double-set boxes was undertaken and, not surprisingly, the boxes with two traps caught more animals than the single trap boxes. But, rather than catching twice as many animals, the double-set boxes actually caught seven times more animals than the single-set. One reason postulated for this much increased catch rate is that the first catch acts as a fresh lure to attract the second animal to the box.

### Automatic killing devices

Even with two traps per box, the time and energy required to continually check traps has led to several companies developing automatic killing devices which will hopefully only require servicing every six months at the most! The most advanced of these i.e. that are beyond prototype model and are being marketed are the Goodnature self-setting traps ([www.goodnature.co.nz](http://www.goodnature.co.nz)).

These are powered with a small CO<sub>2</sub> canister that drives a spring loaded rod into the back of the animal's head delivering a fatal blow. The animal then falls from the trap by gravity and the trap resets ready for its next victim. They have two sizes of traps available – the A12 for possums and the A24 for rats and stoats. Incidentally, the A stands for automatic and the digit is the number of kills before the CO<sub>2</sub> canister runs out!

### Field assessment

The NZ government is currently undertaking a \$2 million (NZD) three-year field trial involving over 4,000 of these traps. The first phase of the trial saw a high degree of mechanical failure with leakage of CO<sub>2</sub> being an issue. This has resulted in changes in design and tighter manufacturing standards, such that the traps are capable of withstanding the ravages of the NZ wilderness. The final phase, which will be completed later this year, is testing the ability of these new traps to reduce population levels of pest species at a landscape scale.

There is no doubt in my mind that if this final phase proves successful then DOC will gradually start to replace their trapping



*Cut-away of the A24 automatic killing device for rats and stoats. The NZ government is currently conducting a three year field trial to assess their suitability*

boxes with Goodnature automatic traps. This will prove costly in terms of the initial capital outlay, but will save in the long-run in terms of trapper time to check and service the traps.

The next big problem to solve with the Goodnature traps and other automatic devices is the provision of suitable long-life lures. A piece of rabbit meat or an egg barely lasts four weeks between checks, especially in the summer months. A lot of trappers I saw were using Erayz which is an oven dried rabbit paste produced by Connovation ([www.connovation.co.nz](http://www.connovation.co.nz)). But, even this, will be unable to continue to draw pests for six to 12 months. A lot of the university departments I visited were busy trying to identify, and then synthesise compounds, such as pheromones, that could be released from drip bottles and would act as suitable long-term lures.

So how does this fit into UK pest control? Well, as stated earlier, if a trap has been approved as humane in another country that is a signatory to the International Humane Trapping Standards then it is relatively easy to get it added to the STAO.

The Goodnature A24 has been tested on stoats and ship rats in New Zealand. But, to make it of any real value in the UK, it will also have to be tested on Norway rats and grey squirrels.

Goodnature has plans to get it approved in the UK and then I can see the A24 being a really valuable tool in our armoury for controlling rats without having to resort to rodenticides. It could also be the answer to eradicating the grey squirrel to allow the red squirrel to recolonise much of England. The issue that we have, that is not as apparent in NZ, is the number of non-target animals that might gain access. Before these devices could be used in the UK we will need to develop suitable sets for the A24 that prevent non-targets gaining access.



*The A24 could become a really valuable tool in our armoury*

## Availability in the UK

Readers may wonder if these traps mentioned are available in the UK. Nooski traps are available from Killgerm. The fate of the DOC trap is a little more complicated. Until recently the trap could only be used in a special wooden housing made and shipped from New Zealand – making an already quite expensive trap completely unaffordable. However changes in the Spring Traps Approval Order now permits housings to be made locally, to the Department of Conservation design and standards. Research has revealed that they are available from Perdix Wildlife Supplies in Kenilworth and are approved for use trapping grey squirrels, rats, stoats and weasels.

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# No hiding place!

## Thermal imaging finds the mice

All pest professionals know that finding the root cause of a pest problem is the first step on the way to solving it. Associate editor, Helen Riby, caught up with Mitie's regional director (south) pest control, Gareth Davies, to find out how he is using a thermal imaging camera to great effect to locate mouse nests in customers' premises.

The professional pest management sector seems to attract more than its fair share of enthusiasts. You know the sort. People who never completely switch-off their pest control brains. Individuals who are constantly thinking about how they are going to solve their next pest problem.

Gareth Davies must have at least one foot in this camp, for there he is watching *Police Camera Action* or some similar reality TV show, where the bad guys are located because the helicopter has a thermal imaging camera and he thinks, that could be useful when we're looking for pests!

Following that eureka moment, Gareth then set about tracking down the manufacturers and persuading them to let him have a £10,000 camera on trial. To check out how useful it might be in locating rodent nests he took it to Church Farm where Dr Steve



Mitie's Gareth Davies demonstrates the thermal imaging camera

Havers keeps colonies of live house mice and rats for training purposes. The camera performed really well. Pleased with the results he then had to persuade Mitie to spend £10,000 on the technology. "That was 18 months or so ago and the camera has already paid for itself," says Gareth. "It has proved to be a really useful piece of kit."

One of the first big jobs it was used on was at a major cash-and-carry site which was over-run with mice and about to be shut down.

As Gareth explains: "To give you an idea of the scale of the problem, the cash-and-carry was throwing away £800 of damaged food products every single day. We were called in because the client had lost all faith in the incumbent pest control company's ability to solve the problem. I carried out the site survey with our thermal imaging camera. This revealed the sequence of pictures (right) which were taken on the top of a massive 50ft freezer.

"The first showed a yellow heat signature, so I asked the fitters to remove the plate which sealed the freezer panels together. The second produced a red hot reading six inches into the panel.

"The third picture shows the hole in the panel and the fourth, which was taken with the SeeSnake camera, clearly shows the mouse nest within the freezer roof.

Finding that nest without this technology would have been extremely difficult and we may never have found it. Even with the aid of the camera it took us two months to clear the site, catching more than 400 mice in the process."

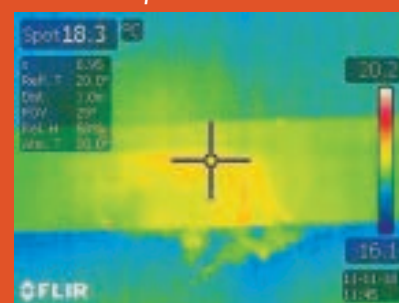
Like any new technology there has been a bit of a learning curve so it's used by Gareth in the south and by his opposite number for the north, Norman Smith. "We've ended up couriering it round the country but we're now buying more to ensure effective national coverage," he adds.

Clearly it must be paying its way!

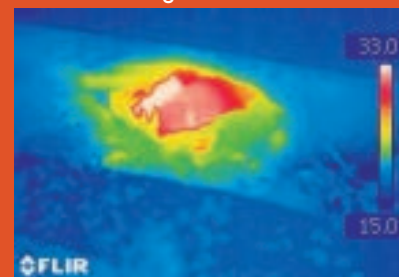


### Cash & carry case study

- 1 Yellow heat signature showing heat deep within the freezer roof



- 2 Red hot reading after fitters had removed the plate sealing the freezers together



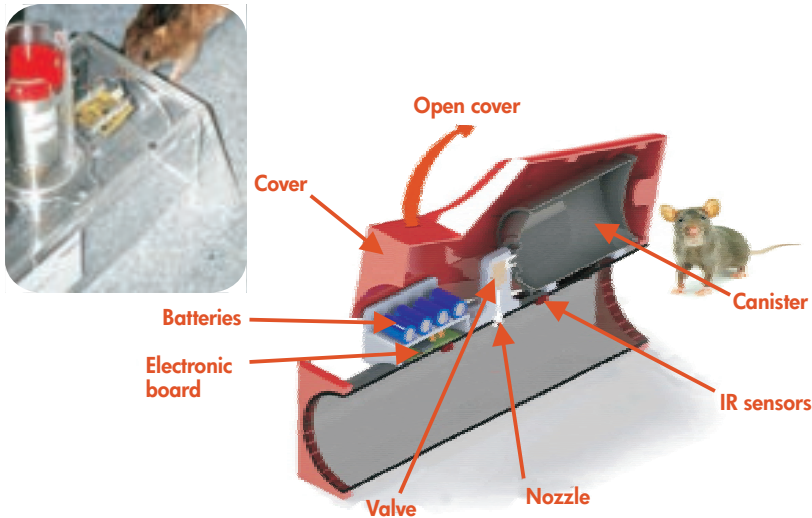
- 3 Hole in the panel that allowed the mice through



- 4 Mouse nest clearly visible using the SeeSnake camera



# Novel ideas in rodent control



A cut away view of the IRIS Research and Development, pre-prototype system, pre-prototype technical specifications, 2012

First of all, I would like to thank the readers of **Pest** for contributing their thoughts on our novel rodent control device developed by the Pied Piper Consortium. Many represent those we have come across in early focus groups so it's a pleasure to be able to respond to some precise questions around the technology.

The Pied Piper (PP) project's origins were built upon existing work of key small business partners and now consist of a team of small to medium sized enterprises from over Europe. It was awarded a prestigious grant in 2011 by the European Union Commission to develop alternatives to anticoagulant baits as there is a realisation they have become significantly less efficient.

## Growth of global resistance

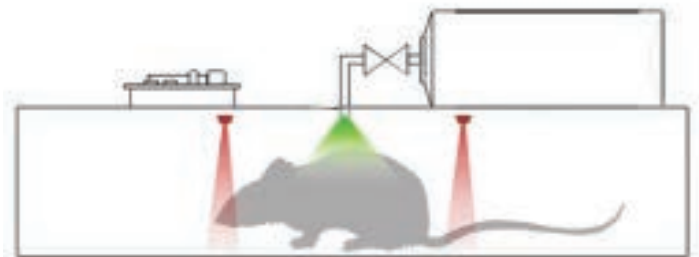
The growth in global reports of resistance, to both first and second generation anticoagulants, has now made the need for an alternative unequivocal. In order to move away from anticoagulant baits a method of control must be achieved which differs: in active ingredient, and delivery; a view shared by the European Union.

Cholecalciferol is an active ingredient already safely used in America and the Southern Hemisphere in bait and paste form.

Unlike warfarin and other anticoagulants, cholecalciferol

On 27 January 2014, **Pest** featured a story on the website on a new rodent control device being developed by Aston University. In this we asked for readers' comments. Interest was considerable and comments flooded-in. A resume of the key points raised appeared in the last issue (issue 31 – January & February 2014) of **Pest** magazine.

In response, Dr Andrew Ingram of Aston University has replied to your comments on behalf of the Pied Piper Consortium.



Above, the IRIS Research and Development, pre-prototype system, pre-prototype technical specifications, 2012. The green spray denotes the formulation being sprayed onto the back of the rodent. The red spray indicates the infra-red detectors. When the front and back infra-red detectors are triggered the device reads that the rodent is in the correct position and the cholecalciferol is dispensed

(Vitamin D3) is a naturally occurring compound; many mammals photosynthesis vitamin D in the skin when exposed to sunlight.

A human male will produce approximately 250 µg of vitamin D per day; interestingly, it is a deficiency in vitamin D which is of more concern to humans as it decreases calcium uptake, potentially leading to Ricketts (it also explains the widespread supplementation of vitamin D in milk and yoghurt products). For this reason, humans have a relatively high tolerance to cholecalciferol, as do many other species; birds/raptors in particular have been reported to ingest up to 2000 mg/kg (dose/body weight) without any adverse effects.

## Development partners wanted

Steve Goode, the inventor and co-ordinator of the Pied Piper project, is keen to hear from anyone (within or external to the pest control industry) who would be interested in commercial co-operation and development of the product. This can be on either a UK, or world-wide, basis.

Contact Steve via email on [sg@piedpiper.eu](mailto:sg@piedpiper.eu)

## The Pied Piper Consortium

Pied Piper is a consortium of universities and small companies that have come together to develop a new generation of pest control devices for rats and mice.

The project is funded by the EU Commission through REA (the Research Executive Agency) through the Seventh Framework or FP7. The grant for this project (believed to be in excess of 1m Euros) is specifically called 'Research grants for the advantage of SME's (Small Medium Enterprises).' It is highly competitive, applications are accepted from consortia throughout the whole EU, but only the best 100 or so projects each year get funded. This grant process takes place annually and is of great assistance to small innovative companies and groups who do not have the research capabilities or resources to put their innovations into practice.

The consortium is made up of the UK's Bionics Ltd (as project co-ordinator) and Aston University, from Spain are Burgos University and IRIS, from France come Cellvax and Helios Biosciences and from The Netherlands is Summit Europe.



Its synthesis in mammalian skin highlighted the potential for transdermal delivery. Delivery through rodent skin is by no means an easy task; the skin is an extremely effective barrier against unwanted chemicals, thus dermal absorption is not instant.

### Designed to stay on the rodent's skin

To facilitate delivery of cholecalciferol through the skin, the rodenticide must adhere to the rodent's skin to give the cholecalciferol sufficient time to absorb. With this in mind the Pied Piper consortium has employed experts in transdermal delivery who have successfully developed a novel rodenticide capable of both adhesion and cholecalciferol delivery.

It is worth noting that this is completely different from rodenticidal dust which experienced problems due to the unwanted spread of the toxin. The PP formulation relies on the rodenticide staying in contact with the skin, transfer and wash-off would not allow transdermal delivery, thus the formulation has been designed to prevent transfer onto other surfaces.

With a patent filed on the rodenticide, initial controlled laboratory evaluations showing 100% efficacy, and the abundance of data on cholecalciferol's use in other areas of the world, the case for regulatory approval is becoming stronger. With this in mind the delivery of the toxin now becomes the focus of the project.

### Delivery mechanisms

The consortium is exploring a number of options for dispensing the rodenticide of which the most promising is a triggered aerosol canister. The device would use simple electronics to dose a specified amount of the rodenticide on the back of the rodent when in the tunnel.

This dose can either be calculated based on the size of the rodent, to limit the exposure of the toxin to the environment; or a generic amount sufficient to be effective on all rodents.

The tunnel/trap itself will be designed to prevent access to non-target species through physical restraints at the trap inlet. Specifically the size of the inlet will be tailored to only allow small mammals of a particular size to pass through.

Pest controllers would deploy aerosol canisters in a similar format to anticoagulant baits, with simple safety precautions such as gloves being all that is required.

### Potential savings

Obviously, the device is more sophisticated than typical bait stations and thus may potentially be more expensive; however it is worth considering the potential for savings:

- No need for pre-baiting: rodents would not have to become familiar with the food source before the poisoned bait is put down;
- Greater efficiency: the device is not reliant on the rodent to ingest lethal doses, once in the device an effective dose will be delivered;
- Reduced carbon footprint: it is hoped that the combination of both these points will result in reduced travel for pest controllers.

The important point to take from this is that while many second-generation anticoagulants still offer a degree of control, there is a global concern that this method of pest control will eventually become redundant, due to increases in resistance and bait shyness. If this does happen, and the evidence suggests it has started, a new generation of pest control will be required.

The device developed by the Pied Piper consortium is both different in active ingredient and method of dosing. While this device may appear radical initially, we believe it will become a valuable alternative for pest control professionals.

## The regulatory status of cholecalciferol



Readers of *Pest* may well be wondering what the regulatory status is regarding the use of cholecalciferol in such a system.

From research undertaken – as explained below – it would seem there are some considerable hurdles still to overcome prior to full commercialisation. Leaping these may well take months, even years, to resolve.

Originally, cholecalciferol was never supported as an existing active substance under the Biocidal Products Directive (BPD) review programme but, it is now known that a Task Force comprising of BASF and Bayer is supporting it as a new active substance under the Biocidal Products Regulations (BPR).

It is notable that all rodenticidal active substances (with one minor exception) are included in Annex I for use as 'ready-to-

use-baits only' and that the maximum

concentration in the bait generally reflects that which is in products on the market.

The Pied Piper trap contains a high strength cholecalciferol solution for application via the device to the spine/back of the rat. It will be interesting to see how the Pied Piper consortium intend to amend the approval of cholecalciferol as an active substance in order to be able to market the device – as both the maximum concentration limit and also the use as a ready-to-use bait will have to be amended.

In addition, the Pied Piper consortium will need to interact with the BASF and Bayer Task Force, who will ultimately 'own' the approval of cholecalciferol as a ready-to-

use bait under the BPR. Although it is acknowledged that rodenticidal baits lead to contamination of the environment through primary and secondary poisoning, concern must also be expressed about the transference of cholecalciferol from dosed rats to the environment.

Current Exposure Scenarios for PT14 (rodenticides) primarily address exposures from the use of baits, so these would have to be revised to take into account the utilisation of cholecalciferol in a device such as the Pied Piper one before any evaluation can be undertaken.

There is currently no process for this to occur.



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## Field biologist role – BRC style

This useful short guide is produced by the British Retail Consortium (BRC) and written by Dr John Simmons of Acheta Consulting. Outside of the UK, the role of the field biologist is often poorly understood so this document aims to explain more about why this service is a BRC requirement.

It is clearly written and concludes with a series of quick tips, namely: ensure the field biologist is appropriately experienced and qualified; ensure that a sufficient number of in-depth surveys are scheduled throughout the year; where appropriate, ensure that these surveys are targeted for relevant seasons or activities; set out clear objectives; ensure the content of the report covers all relevant areas and ensure reports are reviewed and where necessary actions are implemented. Downloaded free at: <http://user-71217823822.publ.com/Introduction-to-Pest-Control#4>



## Sporting shooting and the law



Written by David Frost and published by the National Gamekeepers' Organisation, this booklet describes itself as a user's guide to the Firearms Acts 1968-1997 and other legislation affecting sporting shooting.

In this handy 66-page booklet, you will find information on firearm general principles, shot guns and certificates, air guns, visitors' permits, security and safety issues along with a whole raft of

information concerning legal matters.

ISBN 9780992863807. Price £8 from NGO at:

[www.nationalgamekeepers.org.uk/shop](http://www.nationalgamekeepers.org.uk/shop)

## New LODI catalogue

This catalogue from Lodi joins the other distributor catalogues now available.

Aimed at professional users, the product types featured include insecticides, rodenticides, disinfectants, traps and bait stations, equipment and the company's comprehensive range of grain protectant products.

Printed copies from Lodi or downloaded at [www.lodi-uk.com/catalogues.html](http://www.lodi-uk.com/catalogues.html)



## Insect physiology

Hardly light bedtime reading at 682-pages, but *Physiological Systems in Insects* by Marc J Klowden discusses the roles of molecular biology, neuro-endocrinology, biochemistry and genetics in our understanding of insects. All chapters in this third edition are updated, with major revisions to those covering swiftly evolving areas like endocrine, developmental, behavioural and nervous systems. This is a standard reference for entomologists and researchers as well as a valuable addition to the collection of any researcher or student working with insects. ISBN 9780124158191. Price £54.99 from Elsevier <http://store.elsevier.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 through our articles on owls and SGARs (page 9), RSPH and RAMPS (page 10) and new developments in EFks (pages 15-17) in this issue of **Pest** and answer the questions below. Try to answer them all in one sitting and without referring back to the articles.

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

After your completed **Pest Test** arrives we will mark the questions and, if all answers are correct, we will enter the results directly onto your own PROMPT records held by BASIS.

- 1** How many signatures does an e-petition need to be considered for debate in the House of Commons?

<input type="checkbox"/> a) 1,000	<input type="checkbox"/> c) 100,000
<input type="checkbox"/> b) 10,000	<input type="checkbox"/> d) 1,000,000
- 2** How many breeding pairs of barn owls does the Barn Owl Conservation Network estimate there will be in 2014?

<input type="checkbox"/> a) Between 4,000 & 6,000	<input type="checkbox"/> c) Between 8,000 & 10,000
<input type="checkbox"/> b) Between 6,000 & 8,000	<input type="checkbox"/> d) Between 10,000 & 12,000
- 3** What does RAMPS stand for?

<input type="checkbox"/> a) Register of Actual Male Phosphine Suppliers	<input type="checkbox"/> c) Register of Accredited Metallic Phosphide Standards
<input type="checkbox"/> b) Registered Action Men in Pesticide Spraying	<input type="checkbox"/> d) Regular Account Minutes Photographic Shares
- 4** What is the cut-off date after which all purchasers and users of aluminium phosphide must hold a recognised certificate?

<input type="checkbox"/> a) 25 November 2014	<input type="checkbox"/> c) 25 November 2015
<input type="checkbox"/> b) 25 March 2015	<input type="checkbox"/> d) 25 March 2016
- 5** What is the % ratio of heat to light given-off by a fluorescent tube?

<input type="checkbox"/> a) 5% to 95%	<input type="checkbox"/> c) 67% to 33%
<input type="checkbox"/> b) 45% to 55%	<input type="checkbox"/> d) 30% to 70%
- 6** What does LED stand for?

<input type="checkbox"/> a) Low Energy Diet	<input type="checkbox"/> c) Light Extra Day
<input type="checkbox"/> b) Light Emitting Diode	<input type="checkbox"/> d) Level Entry Dose

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# New traps looking for a home

Traps seem to be the 'flavour of the month' at the moment. Out and about recently we have come across a series of new and innovative traps as revealed here, yet these have yet to appear on the UK professional market.

At Eurocido there were several new traps on display (see our web news report) but there was a whole gaggle of them on the Germany-based Futura stand. Not only are the traps cleverly constructed, but they are designed to utilise both non-toxic Nara Lures (see box right) and also ingenious hand-wound, energy self-sufficient emitters which send a signal when the trap is sprung.



Daniel Schröer shows off the circular Swopbox and the Speed Break

As demonstrated by Daniel Schröer, international sales manager for BioTec Klute, the Swopbox is specifically designed for use wall-mounted in hygiene areas which are wet cleaned, whereas the Speed Break tunnel type trap includes two Kness mouse traps and emitter. With the habits of the mouse in mind, the EPP-tunnel (also seen on the Killgerm stand at Eurocido) is a considerably longer tunnel type trap, constructed of 'warm to touch' epoxy foam material. In it there are two Kness traps which can be baited with Nara blocks accompanied by an emitter alert, all contained within a protective stainless steel 'sleeve'.

Daniel is actively seeking international partners to work with.

[www.emitter.info/en](http://www.emitter.info/en)

## Don't feed the mice – or rats!

Non-toxic monitoring baits are growing in popularity, but the existing food-based ones are prone to infestation by insects and mould, especially if used in damp areas.

Futura has developed two aromatised, allergen-free, plastic baits – the smaller (Nara Lure) shown top, is mushroom-shaped and is designed as a lure for mice and fits snugly into a Kness mouse trap.

Nara Bloc is a larger bait suitable for rats.



The EPP-tunnel designed with the mouse in mind

## Self-designed mole trap

Fed-up with the moles making a complete mess of his prize garden and lawn, then retired David Relf (seen right) set about waging war on his moles. Having researched the available traps on the market, most of which he felt were better designed to catch his fingers than the moles, he set-about designing his own! He wanted one accessible from both ends, easy to set and which clearly indicated when it had performed its task.

After much trial and error he came up with his own design, now patented, and the Beagle EasySet mole trap was born. The actual trap is made out of injection moulded plastic with galvanised steel springs and killing loops. It has a high powered spring mechanism and bi-directional trigger, crimped killing bars for increased point pressure to ensure a quick, clean kill every time it is easy to see if sprung as the plunger handle simply pops-up.

To date David has concentrated on the more lucrative retail market, but would be happy to hear from professionals.

[www.beagleproducts.com](http://www.beagleproducts.com)



Left: Trap set  
Below: Trap sprung



## Deadline Alpha Express

A new and extremely effective way to clear large infestations of mice quickly, Deadline Alpha Express bait blocks are both highly palatable and ruthlessly efficient, explains Rentokil Products.

Containing alphachloralose, the product kills mice with as little as one scrape of the incisors.

It works primarily as an anaesthetic which, once eaten by the mouse, causes drowsiness leading to loss of consciousness.

Death will normally follow quickly. An added advantage is that it leaves no residues which may lead to secondary poisoning.



email: [products@rentokil.com](mailto:products@rentokil.com)

## Trap and lure for bed bugs

This bed bug monitoring lure combines both bed bug trap and, most importantly, an aggregation pheromone lure. The use of the aggregation lure is also something of a first!

With the addition of the pheromone lure, the trap will rapidly detect the lowest bed bug infestation levels, explain Suterra, the manufacturer. This they say means it will detect infestations when other monitors would fail to register any bed bug activity.

The lure, which has a two week duration lifespan, mimics the bed bugs' natural tendency to congregate in 'safe' areas and is capable of trapping bed bugs through all developmental life stages. The new Trappit BB Detector Plus claims to be reliable and easy to use and it's pesticide free.



[www.suterra.com](http://www.suterra.com)

## Bed bug life cycle



Maybe a training aid, or maybe a paper weight for your desk to sit there reminding you of your bed bug problems? The choice is yours!

Cast in polyester resin, in this circular block you will find all the life stages of the bed bug (*Cimex lectularius*) – from egg, through five instar nymph stages to adult; be it male or female.

The relative size of each will impress you, but pity the poor soul who has to collect and mount all the specimens in the appropriate quantities!

[www.killgerm.com](http://www.killgerm.com)

## Here today, gone tomorrow

Two more products bite the dust. Readers should beware as several products are currently being withdrawn and then introduced once again with slightly different names or label wording (as K-Othrine below). If in doubt check with your distributor, the manufacturer or the HSE database. It is an offence to stock or use a withdrawn product.



### K-Othrine SC out – K-Othrine WG 250 in

Pest controllers using Bayer's liquid formulation K-Othrine 1% SC can now no longer buy this product from distributors. The cut-off date for sales was 30 March 2014.

All stocks must be used by 30 September 2014 or disposed of in line with UK legislation.

The good news, however, is that K-Othrine 1% SC is being superseded by a similar deltamethrin-based product, K-Othrine WG 250.

K-Othrine WG 250 is different in that it is a granule formulation, rather than a liquid.



### Avert cockroach gel

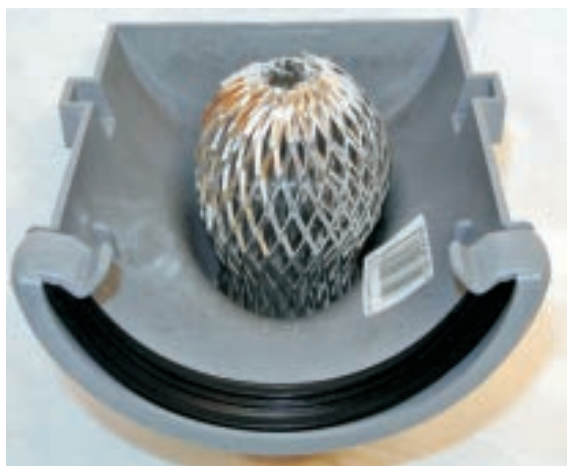
Pest controllers in the UK will only be able to continue using or storing the cockroach treatment gel, Avert, until 31 December 2014.

BASF will no longer be supporting any product containing abamectin through the Biocides Directive.

The product will no longer be able to be purchased from distributors after 30 June 2014.

## Necessity is the mother of invention

Driven-on out of desperation when his own home played host to rats, inventor Karl Savage set about designing a means of stopping rats using his drainpipes as access points to the house. The solution he came up with is Vermin Guard.



Vermin Guard fits in the top of a down pipe/drainpipe and is perforated to allow water to go down and nothing to come up. It compresses at the bottom so dropping into the down pipe/drainpipe where it twists and expands until snug. It fits both square and round pipes. The manufacturer claims, Vermin Guard will stop rats climbing drainpipes, running along guttering and going under roof tiles into the loft space.

[www.verminguard.co.uk](http://www.verminguard.co.uk)



## Fit for fabrics

The Xlure-FIT is a multi-species pheromone trap designed for use against fabric pests such as the clothes moth, case making moths, black and also varied carpet beetles.

All too often today, woollens and materials made from natural fabrics are attacked, especially by clothes moths.

This is a particular problem, not just in a domestic situation, but also wherever textiles are processed and stored such as in museums, theatres and carpeted areas.

Manufactured by Russell IPM as part of its Xlure range, Xlure-FIT uses pheromones which last up to eight weeks to attract its target insects. It is easy to use and comes with a 360 degree entrance.

[www.russellipm.com](http://www.russellipm.com)

## Easy sealing time after time

The Superflow sealant gun is engineered to a high quality making it a robust gun which can handle the toughest of conditions. It comes with a rotating barrel, smooth action trigger with a high pull ratio. The soft grip handle, non-drip device and smooth action make it easy to use and reliable, says Killgerm.



[www.killgerm.com](http://www.killgerm.com)

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# Eurocido kicks off spring events

Eurocido, held every two years in Dortmund, is the German flagship event. It provides the meeting place for the European-based pest control market in the alternate years to PestEx. Having said that, there were still plenty of practical German pest controllers in attendance despite the Euros 35 charge on the door. With a new chief executive, Andreas Beckmann, at the helm of organisers, DSV, the 11th event was, if anything, bigger and better than before. There were very nearly 100 exhibition stands, so plenty to see and a good contingent from the UK – Brandenburg, Control Zone Products, IPC, P+L, PelGar, PestWest, Rat Pak, Russell IPM and Suterra. To read our detailed reports from the event on 19 and 20 February please go to the news section of the **Pest** website.

read more on the web [www](http://www.pestmagazine.co.uk)



Andreas Beckmann chief executive of event organisers, the German pest control association DSV



Pest editor Frances McKim meets up with David Parsonson of Suterra



Ian Smith from Bird Free was at ease explaining the benefits of the product in German



On the PelGar stand, Dr Gareth Capel-Williams (centre), managing director with European sales manager Vincent Russo (right) and Middle East and Africa sales manager, Emmanuel Mahdavi



From the UK, above, Howard White of Rat Pak, based in Lincoln and below, the P+L display incorporating SX Environmental Supplies and Network bird products



The German market is an important one for Killgerm and sister company PestWest



Starting them young! These two youngsters definitely got into the spirit of things



A bit of fun on the dutch company Q-Chem stand



Serious stuff. All the seminars were well attended. The rodenticide risk mitigation seminar was over subscribed



German company, IGEBA, sell ULV spraying equipment worldwide. Eurocido is a great place to meet customers from all around the globe

# Diary dates 2014

## 8-9 May

### ConExPest 2014

International Trade Fair & Conference Centre,  
Krakow, Poland  
[www.conexpest.pl](http://www.conexpest.pl)

## 21 May

### PPC Live 2014

Salford City Stadium, Manchester  
[www.ppclive.org](http://www.ppclive.org)

## 2-4 June

### 11th Fumigation & Pheromones Conference

Krakow, Poland  
[www.insectslimited.com](http://www.insectslimited.com)

## 20-23 July

### 8th International Conference on Urban Pests

Zurich, Switzerland  
[www.icup2014.ch](http://www.icup2014.ch)

## 24 September

### Benelux Pest 2014

Voorthuizen, The Netherlands  
[www.beneluxpest.nl](http://www.beneluxpest.nl)

## 7-8 October

### CIEH Conference 2014

East Midlands Conference Centre, Nottingham  
Email: [d.donnelly@cieh.org](mailto:d.donnelly@cieh.org)

## 21-24 October

### PestWorld 2014

Orlando, Florida, USA  
[www.nmpapestworld.org](http://www.nmpapestworld.org)

## 5 November


### PestTech 2014

National Motorcycle Museum, Birmingham  
[www.pesttech.org.uk](http://www.pesttech.org.uk)


## 19-21 November

### Parasitec 2014

Espace Champerret, Paris, France  
[www.parasitec.org/index.php/en](http://www.parasitec.org/index.php/en)





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**Glenn Elliott, Contracts Manager, Cannon Pest Control Northern Ireland.**

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**Mark Hobbs, Surveyor, CLEANKILL (Environmental Services) Ltd, Croydon.**

"We have always found 小島 Bird Free to be effective, and the new pre-dosed version makes our work a lot easier. We regularly make follow-up visits to our clients' sites, and have found that the pre-dosed 小島 Bird Free maintains its shape and appearance very well over time."

**Craig Nickless, Managing Director, ERS Environmental Services, Aylesbury.**



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