

pest

The independent UK pest management magazine

Is he resistant to anticoagulant rodenticides?

Issue 4 - July & August 2009

Pest control training
in the Army



14

Clothes moths are
on the march again



17

Rentokil staff find
their way in Libya



20

Fumigation saves
doll collection



22

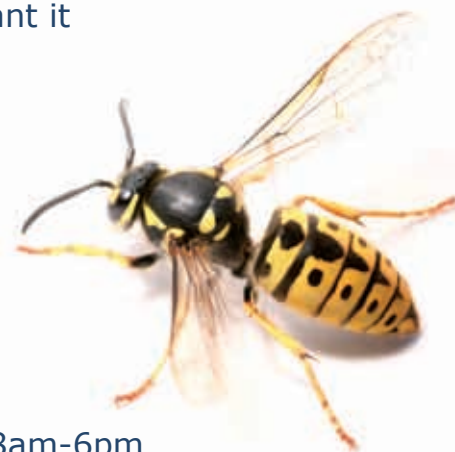
26

REASONS WHY CUSTOMERS ARE THE MOST SUCCESSFUL!



Killgerm
www.killgerm.com

- +7 | SEVEN AREA SALES MANAGERS**
Giving you the opportunity for face-to-face contact
- +8 | EIGHT RSPH QUALIFIED CUSTOMER SERVICE REPRESENTATIVES**
Giving you service with a smile
- +7 | SEVEN TECHNICAL SUPPORT STAFF BASED THROUGHOUT THE UK**
Giving you advice and training where and when you want it
- +1 | THE BEST OFFERS**
Giving you the competitive edge
- +1 | THE BEST REWARD SCHEME: PLUS POINTS**
Giving you an extra bonus worth up to a 7% discount
- +1 | THE LARGEST STOCK AND WAREHOUSE TEAM**
Giving you the fastest deliveries
- +1 | EASY ORDERING**
Giving you the option of extended telephone ordering 8am-6pm or online ordering 24/7 ordering via www.killgerm.com



ALL HERE TO SUPPORT YOU THROUGHOUT EVERY SEASON



KILLGERM CHEMICALS LIMITED
PO Box 2, Ossett, West Yorkshire, WF5 9NA Tel: 01924 268 400 | Fax: 01924 268 757
Email: info@killgerm.com | www.killgerm.com

pest

Pest is published
six times a year



Frances McKim,
editor & publisher



Helen Riby, associate
editor & publisher

Technical advisory board

Dr Moray Anderson
Clive Boase
Dr Alan Buckle
Paul Butt
Prof Chris Feare
Rob Fryatt
Adrian Meyer
Dr Gai Murphy
David Pinniger
Dr John Simmons
Prof Rob Smith
Richard Strand

Aims

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

Send us your news

Send your news or views to:
Email: editor@pestmagazine.co.uk
Or write to us at:
Pest, Foxhill, Stanford on Soar,
Loughborough, Leicestershire LE12 5PZ
We'd love to hear from you.

Advertisers

Please contact the editor as above or visit our website at www.pestmagazine.co.uk

The legal stuff

Whilst **Pest** is produced with great care, the publishers cannot accept any liability for inaccuracies or errors herein. Nor can **Pest** accept any responsibility for claims made in advertisements nor for any results or misadventures experienced from using the products advertised.

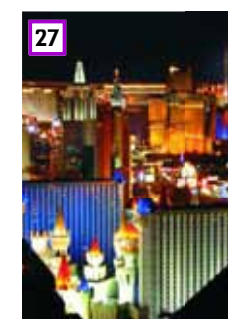
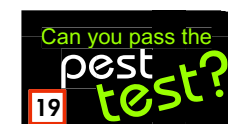
© **Pest** magazine 2009. All published material remains the copyright of the publisher. No part of this magazine may be reproduced, stored in a retrieval system, or transmitted, in any form without prior permission of the copyright holder.

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

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

Contents

Industry news	4
Anticoagulant resistance to be surveyed	6
Keeping up with the pace – new seminar for the NW	7
Combatting rodenticide resistance	8
Getting trained – plenty of options	10
Pelgar 'PODs' for emergency disaster zones	13
On parade – pest control in the Armed Services	14
Clothes moth numbers are surging	17
Logistics, logistic, logistics – Libyan rodent contract	20
Co ₂ saves valuable doll collection	22
Products – what's new?	24
Diary dates	27



A strong international flavour

With the summer holidays upon us, many of our readers will have been soaking up the sun abroad so it seems appropriate that this issue has a strong international flavour. With their massive new contract in Libya, Rentokil staff may well be feeling homesick for our wetter 'BBQ Britain' weather. We congratulate them on capturing this major government contract. Ever inventive, Pelgar is also to be congratulated for its ready-to-go POD system for overseas emergency use – see page 13. Continuing the international theme, we discover the British Army's environmental health training in preparation for deployment overseas is second to none.

If you have not had chance to blow the moths out of your passport yet, then how about attending PestWorld 2009 in Las Vegas this autumn. Talking of moths – how many times have you been asked recently about clothes moths? They seem to be a pest on the up – so we are delighted to feature this pest and to base our new **Pest Test** on it too. If you're collecting BASIS PROMPT CPD points, the test is an easy way of amassing them.

On page 8 Adrian Meyer of Acheta is adamant that something must be done to combat the ever-increasing problem of rodenticide resistance. Doing nothing is not acceptable. Much praise must therefore go to the industry consortium which is putting up the funding for a scientific programme to identify the geographic spread of resistance using the testing facilities at Huddersfield University. We await the results with considerable interest.

Frances McKim

Be first with the news – visit www.pestmagazine.co.uk

Get more news at
www.pestmagazine.co.uk
where you see this symbol

WWW



Lord Jeff Rooker

New head at Food Standards Agency

Lord Jeff Rooker took over as chair of the Food Standards Agency at the end of July. A former Minister at the Department for Environment, Food and Rural Affairs (Defra), he replaces Dame Deirdre Hutton.

Tim Smith, Chief Executive of the FSA welcomed the appointment: "Lord Rooker's political experience and understanding of food issues make him an excellent choice for this challenging position. He brings with him a wealth of expertise that will help us continue the good work overseen by Dame Deirdre on behalf of consumers in achieving our twin objectives of safe food and healthy eating for all."

Commenting on his appointment Lord Rooker said: "I am very pleased to have taken up this position particularly as I was involved in setting up the Agency in the late 1990s when I was a Minister at MAFF (Ministry of Agriculture, Fisheries and Food)."

"I believe it is vital we have an independent, non-ministerial department responsible for food safety, which is open and transparent. I am very excited about my new role and look forward to joining the Agency, which bases its work on sound science and puts the interests of consumers first."

Rokill plays 'royal' football



The Rokill team. Top row, left to right: Chris Rankin, Richard Smith, Andy Jackson and Scott Reynolds. Bottom row left to right: Dave Bolderstone, Toby Legg (captain), Paul Downham and Dave Collins

As a holder of the Royal Warrant, Hampshire-based Rokill Pest Control was invited to take part in the Royal Warrant Holders' Association five-a-side football competition. This was held at the Royal Hospital Chelsea on Saturday 20 June 2009.

Unfortunately Rokill proved better-skilled at chasing pests, than chasing footballs! Their performance was not helped by being drawn, in their first match, against last year's winners – DHL – who they lost to 3-0. In further matches, the team fared slightly better as they won one and drew the other.

However, the team battled manfully with the beers after the match, adding much to the general enjoyment of the day.



Awards shortlist out

Good news. Products from two manufacturers operating in professional pest control have been short-listed in the Best Innovation in Non-crop category for the Agrow magazine awards. The announcement of the winner will be made at a gala dinner in London on 11

November. The two companies are: Exosect with their Exosex SPTab solution Herefordshire-based YPIL - Pest Elimination for its patented magnetic Magthanite powder.

PWIPM comes to a venue near you

Following the successful launch of the Professional Women in Pest Management (PWIPM) group, three further regional workshops have been organised for the autumn. These are free-of-charge and are a great opportunity for women in the pest business to get together to share experiences and network. The venues are:

- Caerphilly in Mid Glamorgan on 9 September
- Beccles in Suffolk on 15 September
- Ossett in Yorkshire on 1 October

Contact info@pwipm.co.uk or phone 01924 268431 for further information or to reserve a place.

Hockley celebrates its 30th birthday

On 3 July, Cheshire-based pesticide manufacturer Hockley International held a party for close friends, business colleagues and family along with their partners and children to celebrate its 30th anniversary.

All the guests were personally invited by Hockley founder – Frank Howard – and included people he had known for years – ranging from the office's former cleaner to the builder.

The guests also included Frank's first ever employee – Karen Marshall – who still works for Hockley as office manager and in-house graphic designer. There were three cakes, each sporting one of the three logos used by the company over the years. All guests received a 'goody bag' on departure, which was also sent to invitees who were unable to attend.



Left to right: Karen Marshall and Frank Howard with his wife Catherine, their HR manager

More to a malt loaf than bargained for

A householder in Ballymoney, Northern Ireland bought more than they bargained for when they purchased a malt loaf from a local supermarket. Unfortunately, the purchaser had consumed several pieces of the malt loaf before finding a whole mouse embedded in the base.



Upon investigation it was confirmed that the mouse had been baked in the loaf. The baker routinely sprayed the baking tins the night before with oil and placed them onto trolleys, uncovered, prior to being filled with dough the following morning. It is believed that the mouse got into the bread sometime between the tins being sprayed and the dough being placed into the tins. When taken to court by Ballymoney Borough Council, the baker – D Hyndman & Sons (Bakery) – pleaded guilty to putting unfit food on the market for sale.

Igrox acquired by Connaught

In something of a surprise announcement, facilities management group, Connaught, has acquired Suffolk-based Igrox for £3.9million.

Connaught claims to be the UK's leading integrated services provider, operating in the social housing, public sector and compliance markets. It employs over 8,500 people but obviously wishes to strengthen and extend the geographic coverage of its pest control portfolio. In recent years, Connaught has acquired parts of the National Britannia pest control business, as well as ANT and Predator Pest Control.

Mark Braithwaite, managing director at Igrox, is to head up the combined pest control operation of the Connaught Compliance business unit. Commenting on the acquisition, Mark said: "An organisation the size of Connaught brings with it opportunities for our clients and staff that Igrox alone could not. The large client base complements that of Igrox. We will still be undertaking pest control and fumigation as before."

Other web news

To read the following news items in full, go to www.pestmagazine.co.uk and look under 'news'.

- Views sought on the European regulation of biocides.
- Pest control hits the TV screens. ITV and BBC start new series on pest control.
- Exosect appoints Garry Thompson as new sales manager for professional products.
- SX appoints Richard Lamb as an additional technical sales manager.
- 'Golden boys' of pest control – Igrox & Rokill awarded gold medals by RoSPA.
- End of an era as gates close on the last Royal Show.

WWW



New one-day event for the Benelux

Sponsored by Pest Control News, the Benelux is to have its own one-day exhibition and workshop.

Called Benelux Pest 2009, it is to be held on 24 September at the 2B-Home Business Centre in Zoetermeer, the Netherlands.

Rounding off the day will be a Pest Control News dinner.

WWW

PelGar International

The Only UK Pasta Bait*

Security & Palatability in a Sachet

DIFENACOU

BROMADIOLONE

BRODIFACOU

** The only pasta bait manufactured in the UK.*

Available from:

SXEnvironmental
professional pest control products

USE BIOCIDES SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.

PelGar International Ltd. Unit 13 Newman Lane, Alton, Hampshire, GU34 2QR.
Tel: 01420 80744 Fax: 01420 80733 Email: info@pelgar.co.uk Web: www.pelgar.co.uk

Dimilin Flo

Selective control
for a wide range
of pest larvae



Dimilin® Flo

A novel insect growth regulator
insecticide for the control of flies and moths

Effective on eggs and early instar
stages of the developing larvae

Helps control flies in livestock housing,
manure and refuse heaps, effective also on
the brown tail moth caterpillar in amenity situations

Containing the active ingredient diflubenzuron,
Dimilin is different from other fly control products
and breaks the insect's lifecycle

No resistance or cross resistance
with other fly control products

Use as part of a control strategy for effective
resistance management in fly control programmes



Certis -1b Mills Way - Boscombe Down Business Park
Amesbury - Wiltshire - SP4 7RX - UK

Tel: +44 (0) 1980 676 500 - Fax: +44 (0) 1980 626 555
Email: certis@certiseurope.co.uk - Web: www.certiseurope.co.uk

ALWAYS READ THE LABEL. USE PESTICIDES SAFELY.

DIMILIN FLO CONTAINS DIFLUBENZURON.
MAPP 11056 ® Dimilin Flo is registered Trademarks of Crompton Corporation.

Anticoagulant resistance to be surveyed

An exciting new pilot survey has been set up to provide preliminary data on the distribution of anticoagulant resistance in Norway rats in the UK. It is being funded by the pest control industry.

At least four different mutations that confer a practical level of resistance are known to be present in Norway rats in the UK. The molecular basis of the genetic mutation is not known, nor the frequency of these mutations, nor their geographical distribution.

This survey will explore the frequency and distribution of anticoagulant resistance mutations of the VKORC1 gene. It will be managed by Professor Robert Smith, supported by Dr Alan Buckle, Adrian Meyer and John Charlton. The testing will be carried out at Huddersfield University using the procedures as detailed in issue 3 of *Pest* magazine.

Funding is being provided by the main manufacturers of second generation anticoagulants – notably BASF, Bayer, Bell, Killgerm, PelGar and Syngenta – and by BPCA. The Health & Safety Executive has also agreed to participate in the project to ensure that it is carried out in a manner that will allow the science-based evidence produced to be used by the Chemical Regulation Directorate at Bootle.

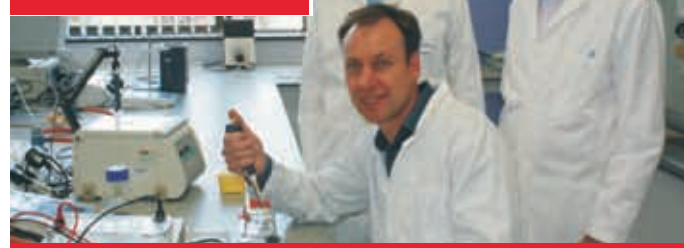
Sampling and analysis will take some six to nine months and reporting a further month. Preliminary findings are expected to be available within about six months. The project will take 12-15 months from start to completion.

It should be noted that this is not a resistance-testing service. Samples of genetic material will be obtained systematically by contacting pest control professionals in both the private sector and local government in selected areas of the UK.

A detailed sampling framework is yet to be worked out but it is intended to concentrate effort in areas where control difficulty is being encountered but where resistance is so far unproven and also in areas on the periphery of known resistance localities so that the extent can be mapped. www.pestmagazine.co.uk



Rats' tails will be analysed



DNA testing will be carried out at Huddersfield University

Keeping up with the pace is theme for new NW seminar



Keeping up with the pace – pest control in a rapidly changing environment is the theme for a free, one-day training seminar organised by Barrettine Environmental Health and supported by *Pest* magazine. The seminar is to be held in the Stanley Matthews Suite at Stoke City Football Club's Britannia Stadium on Wednesday 30 September.

The day will consist of a series of talks presented by leading figures from within the pest control industry. In addition, there will be a number of exhibition stands that delegates can browse during the break periods. This event is a new location for Barrettine, as Chris Parmiter, marketing manager for the company explains: "For several years we have organised a very successful day at Shuttleworth College in Bedfordshire, but we have a loyal band of customers in the North West, Yorkshire and the Midlands. We felt we wanted to hold a similar type of event which was much nearer to them."

Pest magazine is teaming-up with Barrettine to support this new venture. "We were delighted to be approached by Barrettine and pleased to accept this opportunity," says *Pest* editor, Frances McKim. "Providing topical and accurate technical information is one of our key aims," she adds.

To book your place contact Barrettine on 0117 967 2222 or email: beh@barrettine.co.uk

www.pestmagazine.co.uk

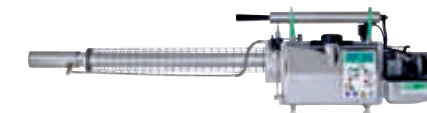
Keeping up with the pace – pest control in a rapidly changing environment

Stanley Matthews Suite, Britannia Stadium, Stoke City FC

09.00	Welcome & introduction Iain Turner , Barrettine Environmental Health
09.15	The changing needs of pest control Paul Butt , Natural England
10.00	The BPD starts to bite - but it's not all bad news Alan Morris , Bayer Environmental Science
10.45	Break and refreshments
11.15	Are you making the most of the media Frances McKim & Helen Riby , <i>Pest</i> Magazine
12.00	New(ish) tools for the box Iain Turner , Barrettine Environmental Health
13.00	Exhibition & lunch
14.00	Recent innovations in fly control Ronald van Lierop , Alcochem Hygiene
14.45	What to do with pest control waste Oliver Madge , BPCA
15.30	Tea and a final chance to meet the speakers

Made in Germany

TF-35



The world class, universal fog generator.

TF-65/20 E



The New masterpiece high-performance fog generator.

DIN ISO 9001:2008

www.igeba.de

IGEBA

IGEBA Geraetebau GmbH
Weitnau | Germany
Phone +49 (0) 8375 9200-0
Fax +49 (0) 8375 9200-22
E-Mail info@igeba.de

Thermal Fog Generators
ULV Aerosol Generators

Combating rodenticide resistance



Adrian Meyer

Rodenticide resistance is an increasing problem. Should the resistant colony be living out-of-doors the problem is compounded as it is possible that the only rodenticides likely to offer control are not approved for such use. In a personal review of the situation, rodenticide expert, Adrian Meyer from Acheta, addresses these issues head-on.

It has been evident for many years that there are an increasing number of field problems with the control of Norway rats. These have occurred over a number of areas in England, Wales and, possibly, Scotland, but are a particular problem in Central Southern England.

No attempt to address this issue has been taken by any central government department. Indeed all resistance monitoring resources were withdrawn in 1996, just as the seriousness of the problem was becoming evident!

Of even more concern is a recent rejection by the Advisory Committee on Pesticides (ACP) of an application to undertake two managed and monitored field trials using brodifacoum 'in and around' infested buildings in the very troublesome Hampshire/Berkshire resistance area.

It would appear from this decision by the ACP that, not only is central government refusing to address this issue, but nobody else is being allowed to investigate the

situation either! This rejection is short-sighted – in practice how are practical pest controllers ever going to achieve control where rats are proven to be resistant, if nobody is going to provide them with the means of doing so. It is hoped that the industry-funded pilot project, which has just begun, to provide data on the distribution of anticoagulant resistance, will go some way towards changing their minds (see page 6).

I was personally involved in a problem situation in Winchester – fortunately as explained in the case study opposite, on this occasion an Emergency Extension for the use of brodifacoum was granted.

Failure to achieve rodent control at such sites raises many significant issues, notably:

- Increased **environmental risk** from the very significant application of enormous quantities of anticoagulant rodenticide which will never work!
- The **costs** associated with the purchase of such rodenticides as well as the very

“Not only is government refusing to address this issue, but nobody else is being allowed to investigate the situation. Simply doing nothing is not acceptable,” says Adrian Meyer.

significant labour costs involved in their application, all to no purpose!

- The failure of central government and local authorities to address this issue raises the question of their willingness to meet their obligations under the **Prevention of Damage by Pests Act 1949**, to 'keep their areas as free as practically possible of rats and mice'.
- The failure to achieve control of significant Norway rat infestations must place both human and livestock populations at risk from **disease transfer** and other hazards. Do we have to wait for someone to die from leptospirosis before anything is done? How do we know that this has not happened already?
- Failure to achieve control of Norway rat infestations must contravene the **Health and Safety at Work etc Act 1974** in terms of employer's responsibilities for the health of their employees.
- Of particular concern recently has been the **amazing rejection by the ACP** to permit even the most competent and experienced organisation to undertake a controlled and managed research programme on the issue.

The current position which hampers our ability to control resistant Norway rat populations in some areas of the UK is not sensible. The restriction on the use of brodifacoum and flocoumafen to 'indoor use' **must** be reviewed.

Simply doing nothing is **not acceptable**.

The Winchester experience

Adrian Meyer gives us an insight into how brodifacoum can be an invaluable tool when faced with resistant rat populations.

In September 2006, I was approached for assistance in relation to a site in the urban area of Winchester in Hampshire. Difficulties had been experienced with the control of a relatively small (12 - 24 burrows) infestation of Norway rats (*Rattus norvegicus*) in an area around a series of flower beds adjacent to buildings used for accommodation. There had been rat activity within the buildings, but this population had been easily controlled using brodifacoum baits.

The outdoor area was being thoroughly baited by a combination of rat bait boxes and burrow baiting. Although there was little evidence of a great deal of bait take from the bait boxes, the bait was being very readily taken from within the burrows.

Over the previous years there had been a number of contractors involved with the site, but none had been able to achieve control in this external area. My review of the records was interesting and, although there was some uncertainty about exact quantities, it appeared that the quantities of bait that had been used over the previous two years were as shown in the table below.

At the time of my involvement the contract had recently been acquired by Chris and Tina Healy of Latham Pest Control from Eastleigh, near Southampton. Following discussions with them, and also the site managers, it was agreed that there was clear evidence that the failure to achieve control was as a result of resistance to the available anticoagulant rodenticides.

We felt brodifacoum or flocoumafen used out-of-doors would offer control. However, their use was 'strictly for inside use only'. If we were to have any chance of receiving approval for the use of these rodenticides 'out-of-doors' and around the buildings, we would have to have clear evidence that the rats were eating quantities of the bait that would normally have killed them and that therefore there was probably resistance on site.

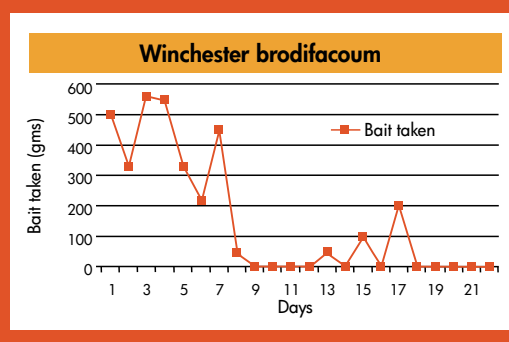
So we started again! Chris and Tina undertook another thorough survey and using bait boxes and burrow baiting, they baited using both difenacoum and bromadiolone baits over the next ten weeks

At the end of this treatment period there had been no reduction in rodent activity. We, and also the client, were convinced that there was serious resistance on site.

The end result was, on a relatively small Norway rat infestation a total of some 213 kgs of largely second generation anticoagulant bait had been used over a period of 15 months with NO reduction in activity.

Next steps

So, with the client's approval, we approached Sorex to seek their help with an application to use Sorex Brodifacoum Rat and Mouse bait around buildings (i.e. out-of-doors) to solve this problem. Such applications have to be made through the approval holder of the product for which the exceptional use is being sought – it is, after all, their rodenticide.



To cut a long story short, the regulatory and technical staff at Sorex gave their full support and an application was made by Sorex to the Health and Safety Executive for an 'Emergency Extension of an Existing Approval'. Eventually approval was given.

The Emergency Extension permitted the use of a maximum of 25 kgs of Sorex Brodifacoum Rat and Mouse Bait over a six week period. There were additional stipulations relating to the records required, but nothing that a competent pest controller would not have done anyway.

Chris and Tina started work on 2 January 2007, baiting in exactly the same way as they had before and, again, keeping accurate records. The results are presented in the graph above.

Control of the infestation was achieved after 18 days. The total quantity of brodifacoum bait taken was 3.4 kgs from the 5.8 kgs used in the treatment. The bait not taken was recovered and disposed of safely. There was no observed access to the baits by non-target species and no non-target casualties were reported.

In addition, a number of rat carcasses were recovered from the site and the last few inches of tail removed for DNA analysis of the VKORC1 gene. The tails were then sent to Huddersfield University, to determine whether or not the rats had the mutations associated with resistance (see the report in **Pest** issue 3).

To no-one's surprise, the results from Huddersfield indicated that the L120Q substitution, commonly known as Hampshire/Berkshire resistance, was found in all the samples. This mutation imparts field resistance to both difenacoum and bromadiolone, but susceptibility to brodifacoum and flocoumafen remains.

To conclude. Control at this site would never have been achieved using the only second generation rodenticides approved for out-door-use – difenacoum and bromadiolone.

Quantity of rodenticide bait used externally

Bait used	Sept 05 to Mar 06	Mar 06 to Sept 06	Sept 06 to Nov 06
Warfarin	7 kgs	Difenacoum and bromadiolone used - exact quantities unknown	–
Difenacoum	35 kgs		10 kgs
Bromadiolone	40 kgs		21.5 kgs
Total	82 kgs	approx 100 kgs	31.5 kgs

Total of 213 kgs used over 15 months with NO reduction in rodent activity

Getting trained

from classroom to online – plenty of options for pest controllers

Training in the pest control industry has a robust and proud pedigree. Having acted as a tutor and examiner for many years, Richard Strand, of the Pest Information Consultancy, traces the background and questions where training may be heading in the future.

Next year sees the 30th anniversary of the British Pest Control Association's (BPCA) residential pest control training course. This course was set up partly in response to the then Ministry of Agriculture Fisheries and Food (MAFF) pulling back from the lead role it had traditionally played in training. It was also in anticipation of the demand for higher standards of professionalism in pest control and a fear that, in the future, pest controllers would have to be certificated by law. The first of these predictions has certainly come to pass, the second...well it still hasn't happenedyet!

The first BPCA residential courses were held at Aston University before making the move, in the early 1980's, to the now familiar venue of Warwick University. Just a few years later, in 1986, the Control of Pesticides Regulations (COPR) were implemented stating, in relation to the consent to the sale, supply and storage of pesticides:

"It shall be the duty of all employers to ensure that persons in their employment who may be required during the course of

their employment to sell, supply or store pesticides are provided with such instruction, training and guidance as is necessary to enable that person to comply with any requirements in and under these regulations."

Revolutionary at the time, this was the only specific requirement under law for pesticides users to be trained, and even this stops short of a requirement for pest control technicians to pass an exam. Will this remain the *status quo*, or are things about to change?

At first sight, as product reviews progress under Directive 98/8/EC – the Biocidal Products Directive (BPD) – the familiar regime under which we have worked for the last two decades may go. The BPD has a different objective to COPR – it is all about 'placing products on the market' and makes no reference to their use, or the training of users. More of this later.

As things stand at present, we are fortunate to have an industry that is well focussed. In 1989 the Health & Safety Executive (HSE) published its guidance: *Recommendations for training users of non-agricultural pesticides*. This publication set the agenda for introductory pest control training. This guidance is respected and recognised to this very day. Indeed, its influence can be seen in the RSPH/BPCA (Level 2) Certificate in Pest Control syllabus.

Basic training is now available from a number of sources – distributors (who take very seriously their product stewardship

responsibilities), several colleges, independent training providers, the trade associations and, of course, the larger pest control companies who organise their own in-house training.

Tailor-made training

Courses are increasingly tailored to suit the candidates. Some prefer the traditional format of a five to ten day residential course, whilst others prefer a modularised approach with time to absorb what has been taught before moving on to the next subject. Adrian Meyer, of the Acheta Partnership, remembers teaching on that very first BPCA course in Aston. He cautions that five days is no longer sufficient and explains: "It was an intensive course when it started and we have added more and more over the years without taking much out! For example at Aston in 1980, legislation occupied a one hour slot after lunch on Friday!"

An addition to classroom training, a long-held ambition of the BPCA, is currently being realised with the launch of computer-based online training for remote students – something which technologically was not even an option back in 1980. Unlike some industries where almost all businesses are located in clusters around big cities, rural pest control is as vital as urban pest control. Many pest control businesses are located in the remotest parts of the UK making attendance at training centres impractical.

At present online learning is up and running in a similar fashion to correspondence courses with a programme taking students through the syllabus subject by subject, but with the advantage of immediate feedback from online testing. Oliver Madge, the chief executive officer at BPCA is excited by the future, saying: "What we have online now is only the beginning. We intend to introduce much more visual material. We also plan to have an online tutor to deal with students' queries." Oliver sees the BPCA's online learning facility as a useful adjunct to the residential courses. Students can study some of the basics online even before the course commences.

Whatever route opted for, candidates and their employers have a clear target. Although there is no statutory demand for certification the RSPH/BPCA (Level 2) Certificate in Pest Control is universally recognised as the qualification to aim for. This qualification evolved from two widely recognised qualifications – the BPCA Diploma favoured by private pest control businesses and the Royal Society for the Promotion of Health (becoming the Royal Society for Public Health in 2008) Certificate in Pest Control, preferred by local authority pest controllers.

Record numbers taking the exam

The hybrid of the two has certainly exceeded the sum of its parts. In 2003 a combined total of some 500 candidates sat one or other of the exams. By 2008 this number was up to 746. By the end of June 2009 – even in recession mired Britain – 465 candidates have taken the exam – well on the way to breaking 2008's record.

But... take a moment to think. How many other industries offer such widespread support from companies large and small, to a qualification which is not mandatory? Again another note of caution from Adrian Meyer: "When we started out in 1980 our objective was clear – to train people to be better pest controllers. With so much emphasis on the Certificate, we are in danger of training people to pass exams!"

Training is not just about new entrants. There is a need to supplement basic training with more detailed courses on specific pests – for example, bedbugs is a big favourite at the moment with the re-emergence of this parasite. Bird control, mosquito control, fumigation, as well as health and safety issues such as working at

height and safe lifting, are all available.

Some courses may need to be taught from a slightly different perspective.

There are staff employed by pest control businesses who need an understanding of pest control without actually doing the job, for example receptionists and sales staff. People employed in agriculture and in parks and gardens may have a need to manage specific pests. Lantra Awards helps fulfil this need offering one and two day courses on six specific 'non-crop' but rural pest problems ranging from grey squirrels to flies in animal housing. These courses are offered at nearly 300 venues throughout the country.

Career progression

Training is also an integral part of career progression with pest controllers tending to follow one of two paths – supervisory or technical. The RSPH is now offering a Level 3 Certificate in Pest Control aimed at supervisory staff, and is developing this further to become a Level 3 Diploma in Pest Control based on a range of modules to suit supervisory, technical development and sales staff.

As an industry we do not 'spit many people out'. Once hooked people tend to stay. In fact, there are very many practising technicians with 20 to 30 years experience under their belts. If training was all about induction with the odd specialist course from time-to-time, such long serving technicians would be well and truly out-of-date. Whilst the pests may be the same, how we manage them is very different now than it was in the 1970s and 1980s.

The solution is the pest control industry's very own Continuous Professional Development Scheme – known as PROMPT (Professional Register of Managers and Pest Technicians). This scheme rewards members with points for involvement in any event that helps maintain the currency of their pest control knowledge. Points can be gained by attending conferences, exhibitions, training days, reading the trade press (including *Pest*) or even undertaking tests such as the *Pest Test* – see page 19. The beauty of the scheme is that it allows technicians to follow their own specialisations whilst the level of points required inevitably means some exposure to 'refresher' or 'update' days as well.

So we have an industry that has a focussed, well orchestrated, well supported training regime backed by relevant examinations ▶▶▶

Numbers taking the RSPH/BPCA Level 2 Certificate

Year	Number of candidates
2004 (Nov to Dec only)	110
2005	609
2006	636
2007	647
2008	746
2009 (to end June)	465



The traditional classroom set-up has been the most popular form of training for over 30 years



Richard Strand



Online distance learning is now an exciting option for some

and a CPD scheme – all without the heavy hand of legislation. So, where do we go to from here?

The beginning of this article alluded to legislative changes that may take away even the basic requirement under law – that users of pesticides/biocides are adequately trained and competent. As Clive Boase of the Pest Management Consultancy says: “It’s not much, but the gentle touch of COPR has been effective at promoting the importance of good training so far. It would be a retrograde step if we lost it.”

Will BPD devalue training?

Within the EU, authorisations made by regulatory member states as part of the BPD review process can have conditions attached to them. These, however, are only valid in the member state where they were made, so these will be of little use.

Better news from the HSE, however. Andrew Edwards of HSE’s Chemical Regulatory Directorate, observes that: “Users already have obligations under COSHH and REACH, as both sets of regulations require users to use chemicals safely – with training being implicit in that safe use.” Andrew goes on to note that in addition, there will be other conditions of use – often involving training, applied alongside BPD approvals. At the time of writing, though, it is not clear how those conditions will be published.

Belatedly, it seems that the European Parliament is voicing concern over potential lack of controls on the use of biocides going through the review process. Autumn 2008 saw delays to an Annex 1 listing for difenacoum. When it finally came, it was given a listing for five years only, followed by a further review, rather than the anticipated 10 year listing.

It is hoped though that CEPA’s work (CEPA is the European association representing the pest management industry) in developing the Roma Protocol and a recently approved CEPA project to work with the European Standards Agency (CEN) to develop a European standard for pest control professionalism, will have reassured the European Parliament.

Finally, on the EU front, we are being urged to watch the Sustainable Use Directive. There is a suggestion that there may be references to training within this.

When it comes to training, the pest control industry has much to be proud of. Changes in future are inevitable – the Royal Society for Public Health is already looking at amending the current basic examination to maintain its status. By and large, though, these changes will seek to build on already firm and long-standing foundations.

WaspBane
EFFECTIVE ELIMINATION

People who visit outdoor leisure attractions that use low efficiency wasp traps are up to 100 times more likely to be stung by wasps than those visiting areas using WaspBane*. Low efficiency wasp traps frequently look busy and frequently catch large numbers of wasps but because they also release large numbers of wasps they attract more wasps than they kill. To put this into perspective, in a large UK theme park, low efficiency wasp traps helped contribute to as many as 150 life threatening allergic reactions calculated over a 25 year period compared with just 1 life threatening allergic reaction over the same period for the same theme park when protected by WaspBane. There are some 46,000 people in the UK with a potentially fatal allergy to wasps and each year some 12 people die. Up to 300,000 people are treated for stings each year and about 1000 people are hospitalised. Don't make this list bigger than it needs to be. Make sure you only install high efficiency traps.

You may just save a life

Low efficiency wasp traps cause swarm feeding and increase risk of being stung.

WaspBane is a unique high efficiency wasp trap which has helped reduce sting rates in visitor attractions by up to 99%.

* Figures obtained from first aid records over 3 years from major theme parks, zoos and outdoor attractions.

For more details
Tel: 01480 414644 or visit
www.waspbane.com
to request a free video or information pack.



PelGar 'PODs' for emergency disaster zones

PelGar International, the Hampshire-based developer, manufacturer and seller of insecticides and rodenticides has come up with a very simple, but effective, idea designed for use in international emergency aid situations.

Christened the POD (Products on Demand) system, it is a rapid response tool for use by aid agencies after disasters overseas. There are three types of PODs, each containing pesticide products and application equipment to deal with a different type of pest infestation.

The PODs allow immediate start-up to the control of flies, mosquitoes or rodents, so preventing a build-up of pest populations that could easily get out of hand in the first few weeks following a disaster.

“Emergency situations, be they political, economic or geographic in origin, can result in the forced displacement of large numbers of people in a short space of time,” explains PelGar’s technical director, Dr Jonathan Wade.

“In the first few hours, the affected population often waits in shock and growing squalor. Lack of basic hygiene facilities combined with contaminated water supply, allows disease and insect vectors to take hold quickly and begin the unending cycle of disease transmission – leading to human suffering, pain and in the worst circumstances, death.

“The first wave of international relief usually involves the provision of shelter, food and clean drinking water – but it is also vital that

the means to control insects – particularly houseflies and bush flies – are provided as quickly as possible.

“A few weeks later rodenticides are usually also needed to protect precious food resources.”

Dr Wade adds: “We have advanced formula products, robust application systems, proven control strategies and experience of dealing with all these pests, in long-term public health campaigns and immediate, life-threatening situations, in countries across the globe. We feel we are well placed to help all those who work at the front line of international aid and relief.”

Launched in Washington DC

The POD concept was launched in Washington DC in July at the International Aid and Trade Show – the world’s leading forum for humanitarian relief professionals which brings together procurement people, product and service providers and opinion leaders from the whole aid industry.

The idea behind the POD system stems from

experience gained by PelGar staff during their work overseas, both with PelGar and other health care multi-national companies in scores of countries over the last 20 years.

This, coupled with discussions with NGO delegates at the recent International Public Health Pesticides Workshop (IPHPW) in London (see **Pest** issue 3) led the company to put together this ‘ready-to-go’ system.



The POD system

The POD system has been developed with three specific situations in mind:

POD-I is designed to allow rapid control of nuisance flying and crawling insects. It contains knapsack sprayers with spare parts, 160 litres of ready-for-use liquid insecticide, and 240, 400g dust packs to combat crawling pests like fleas and ticks.

POD-V has been assembled for the control of vector mosquitoes, sand-flies and bugs. This package contains compression sprayers and 600 pouches of residual wettable powder insecticide in water soluble sachets. This is enough to treat the equivalent of 1,000 two room houses, four times at three month intervals.

POD-R is for use in rodent control programmes and contains 20 long-handled spoons, 200kg pellet bait and 200kg wax block bait, both based on a potent single-dose anticoagulant rodenticide.

Laminated illustrated instruction cards are included in every POD. All labels and safety guidelines can be translated into suitable languages. The PODs are packed onto plastic Europallets and labelled and wrapped for air or sea transport.





Lieutenant Colonel Ken Roberts is head of Environmental Health Policy at the Army Medical Directorate

On parade pest control in the Armed Services

Pest control training in a commercial environment has a proud pedigree, as detailed in the feature on pages 10 & 11 in this issue. However in comparison with the activities of the Royal Army Medical Corps (RAMC) commercial training is a youngster.

To discover how pest control is addressed in the Services and how their training is achieved, **Pest** editor, Frances McKim, went to Aldershot to find out more.

In the British Army, pest control comes under the remit of the Royal Army Medical Corps (RAMC) which traces its history back to the foundation of the Regular Army following the restoration of King Charles II in 1660. However, it was not until 1898 that officers and soldiers were incorporated into one body known as the Royal Army Medical Corps. The RAMC motto *In Arduis Fidelis* is translated as *Faithful in Adversity*. The 31 Victoria Crosses (VCs) won by people in the Corps, including two double VCs and one recipient of both the VC and the Iron Cross, bear testimony to the motto and the character and ideals of the men and women who wear the badge.

On the day of the visit in mid-July to meet Lieutenant Colonel Ken Roberts and his team at the Defence Medical Services Training Centre at Keogh Barracks near Aldershot, there was something of a festive spirit in the air. The current crop of trainees on the Environmental Health Technicians course was passing-out that week, whilst the new intake had just arrived.

Military environmental health includes all those aspects of human health and disease that are determined by physical, chemical and biological factors in the military environment. The manual says, it aims to maintain military capability by the theory and



Warrant Officer 2 Nick Taylor (left) with Lance Corporal Richard Bunn, (back) and Private Matthew Softe alongside some of the insect specimens kept for training purposes

practice of assessing, communicating, correcting, controlling and preventing those factors in the environment that can potentially adversely affect the health or survival of its personnel. To a layman this means it covers such things as, the provision of clean water, food safety, sanitation requirements, occupational hygiene, noise and housing issues as well as maintaining a pest free environment. So pest control is just one of a string of important issues that military Environmental Health Technicians (EH Techs) have to grapple with.

The training undertaken by the students is based at the Defence



In-field training takes place in Cyprus



The latest intake of trainee EH Techs start out on their two and a half years of training

Medical Services Training Centre and lasts nearly two and a half years. It is delivered jointly by the Military Department of Environmental and Occupational Health and Middlesex University. This year's intake consisted of 12 students – four from the Army and eight from the RAF.

There is an initial nine month period of study, aimed at introducing students to the role of the military EH Tech and providing an understanding of the basic principles of environmental and occupational health. This includes a period in Cyprus where they carry out vector and pest surveys and large scale control programmes. This part of the programme is hosted by the Joint Services Health Unit (Cyprus) and supported by Cambridge-based Insects R&D as well as Adrian Meyer of Acheta.

The students then undertake a ten month practical placement with a Service Environmental Health Team or Unit, during which time they are required to complete an experimental learning portfolio providing evidence of workplace learning and also to carry out a law and governance module through distance learning.

Then they return to the classroom for a period of seven months, before graduating as qualified EH Techs and joining their units.

When asked how this qualification compares to those in civvy street, Lt Col Roberts explained: "Graduates from the Military EH Tech Course are qualified to Foundation Degree level. Discussions are currently taking place between the MoD, Middlesex University and Chartered Institute of Environmental Health (CIEH) to formulate how this qualification could be topped up for full EHO accreditation."

In addition, each year a Senior EH Tech is selected by competition before a formal board, to attend an appropriate BSc (Hons) course at Middlesex University so that they qualify as an EHO. This is an essential first step if they wish to apply for a Commission as an Army EHO.

Lt Col Roberts was keen to point out that: "The training delivered is tailor-made to ensure that our EH Techs can deliver under all conditions, especially in austere operational environments."

This was a point emphasised by Lance Corporal Richard Bunn. When asked what he felt was the most challenging part of the training he said: "Transferring the academic training we receive into skills we can use in a military setting – often under extremes of climate and in rugged conditions."

How this training is used in practice – or to use the military term 'in theatre' – will be explored in an article in the next edition of **Pest** magazine.



Russell IPM is the innovative and leading manufacturer of insect monitoring systems for stored products insects.

We provide multispecies trap and ready to use monitoring system to improve accuracy and efficiency of monitoring of stored products insects in the food chain in all stages of production, transit, storage and retail.



The **Xlure-RTU** is the ready to use monitoring trap for stored products flying insects where a multiple of pheromones and attractants are incorporated in the trap itself. It is easy to assemble in less than 30 seconds without any special training. It is also very easy to use.



The **Xlure-MST** is a multispecies trap for monitoring crawling insects present in the food stock manufacturing facilities. It provides a single and simple detection tool for stored products crawling insects. It is specially designed to monitor wide range of stored product insects with one cost effective trap.



68 Third Avenue, Deeside Industrial Park, Deeside, Flintshire, CH5 2LA, United Kingdom
Tel: +44 1244 281 333 - Fax: +44 1244 281 878 - mailinfo@russellipm.com - Web: www.russellipm.com

NEW!

Now you're the expert on ant control



Black Ants



Ghost Ants



Pharaoh Ants



Argentine Ants

- Controls all major ant species
- Rapid control
- Quick and easy to apply
- Remains attractive for up to 3 months

 Bayer Environmental Science

Bayer Environmental Science, 230 Cambridge Science Park, Milton Road, Cambridge CB4 0WB
Tel: 00800 1214 9451 Fax: 01223 226635 www.pestcontrol-expert.com

USE BIOCIDES SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE
Maxforce® Quantum contains imidacloprid 0.03%w/w. HSE 8888. PCS 95547.
Maxforce® is a registered trademark of Bayer CropScience. © Copyright of Bayer 2009 - All rights reserved.



MAXFORCE
QUANTUM

TECHNICAL
Moth control

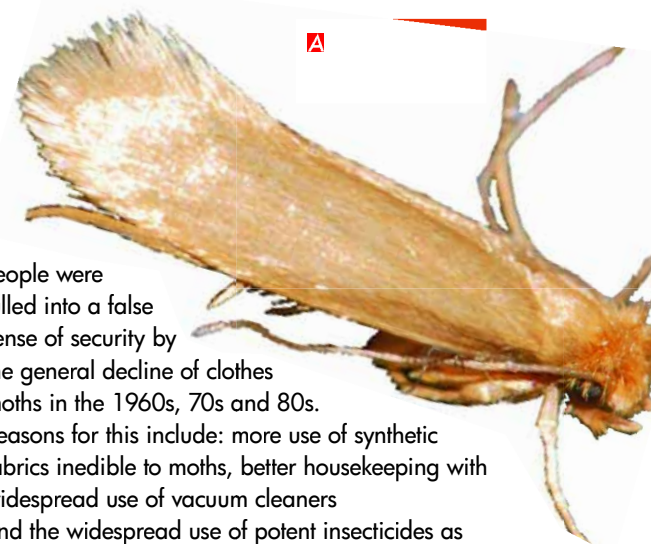
Clothes moth numbers are surging



There was a general decline in clothes moths in the 1960s, 1970s and 1980s but this historically significant pest is on the rise again. Pest magazine asked insect expert David Pinniger to give readers an insight into this often forgotten pest and to throw some light on the reasons for its resurgence.

Holes in your jumpers? Webbing on the carpet? Chances are that you have got clothes moths.

Nothing new about that, the Romans also had problems with moths. One of the first published references to clothes moths is in the Bible, "Your riches are corrupted and your garments are moth eaten" James 5:2. They have been important pests ever since. Moths are also often the target of advice in old home management books such as Mrs Beeton.



People were lulled into a false sense of security by the general decline of clothes moths in the 1960s, 70s and 80s. Reasons for this include: more use of synthetic fabrics inedible to moths, better housekeeping with widespread use of vacuum cleaners and the widespread use of potent insecticides as moth-proofers and remedial treatments. However, in recent years there seems to have been an explosion in numbers of moths both in domestic and historic houses and museum collections.

Why have we seen an increase in moth numbers in the last few years?

There is probably no single reason for this increase but an interacting complex set of factors. The most important of these are:

- Increase in the use of natural fibres, especially wool and cashmere, both favourite food for clothes moths.
- Decrease in the use of moth proofers and other insecticides, particularly the loss of DDVP or Vapona in 2004, which had a vapour action and was amazingly potent at very low doses against adult moths.
- And the most contentious: A series of warm summers and mild winters which enables more moths to overwinter and to develop faster in the summer.



Whatever the reasons, many people have experienced far more moth problems in recent years with a consequent increase in damage. For example, three major national museums in London have had serious moth infestations in the last few years. This has resulted in some damage to collections, fortunately mitigated by good IPM programmes which gave early warning of moth increase and resulted in prompt action by staff. However, it has meant that the museums have had a significantly increased outlay on remedial freezing and heating treatments. Before 2002, moths were either absent or present in very low numbers at all three of these sites.

Reports in the papers and contact with pest control contractors also indicate that there seems to have been a parallel increase in moth infestations in domestic houses.

What exactly are clothes moths?

Most of the infestations are of the common or webbing clothes moth *Tineola bisselliella*. These are small moths, less than 10 mm long, which are covered with shiny whitish-gold scales. If you look closely, you will see that the head has a brush of orange hairs and long thin antennae. Adult moths do not eat but fly well when it is warm and females lay batches of eggs on wool, fur, feathers and other protein-rich organic materials.

When the larvae first hatch they are extremely small, less than 0.5 mm, and they remain in the material where they have hatched. As they feed and grow, they secrete silk webbing which sticks to the material they are living on. They are white with an orange-brown head capsule. As they get larger, they make the silk into tubes around themselves. They will eat large holes in fabric and because of the silk, damaged objects often look very messy.

They also produce large quantities of gritty pelleted excreta called frass. This is often the same colour as



Top and left, typical clothes moth damage. Far left, it is the larvae which cause problems

the fabric being eaten. Larvae prefer dark undisturbed places and are rarely seen unless disturbed.

In unheated buildings, the larvae may take nearly a year to complete their growth and each new cycle starts after they pupate and change into adult moths in the spring. In heated buildings, they may complete two complete cycles per year with another emergence of adult moths in the autumn. In very warm buildings there may even be three generations per year with moths appearing at any time. Put simply, the warmer it is, the more damage you get.

Where do you find moths

The adults may be seen flying around in the Spring, but it is the hidden away larvae which are eating things the rest of the year. Moth larvae are always found where it is dark and undisturbed: for example at edges of fitted carpets or under beds and other heavy furniture which is not moved frequently. They are also found eating fur and woollen clothing which is folded or crammed together on hangers in wardrobes.

What can you do to kill moths?

Most aerosol and spray insecticides will control adult moths which are knocked down and killed by very low doses. The larvae, however, are another matter and are extremely difficult to kill with insecticide treatments. This is because they are hidden away and do not come into contact with the insecticide. They are also protected from sprays by their habit of living in silk tubes. This means that although regular and frequent spraying may reduce moth numbers, it will not usually eliminate the problem. To do this you need to clean thoroughly to remove the attractive undisturbed habitat. You also need to kill the insects in clothing by bagging the items in polythene and placing them in a domestic freezer at -18° or -20°C for two weeks. If you have access to a very low temperature -30°C freezer, you can kill the moths, eggs, larvae and pupae in three to four days. Moth larvae in short pile fitted carpets can be killed by



Clothes moth larvae prefer dark undisturbed places

spraying with an insecticide such as a water-based pyrethroid micro-emulsion.

What can you do to prevent infestation?

Cleanliness and good housekeeping is the key. Regular disturbance of habitat by moving furniture and removing the organic dirt will discourage the larvae. Clearing out old clothes from wardrobes and old bits of carpet from cupboards and attics will also remove attractive moth food. If you do freeze warm clothing, keep the items in plastic bags through the summer until you need them again in the autumn. Can we learn a lesson from our predecessors who used to keep furs in the cold store over summer to prevent moth attack?

Also use webbing clothes moth pheromone traps for early warning. There is some evidence that using a number of really effective moth traps such as the Killgerm AF or Agrisense moth trap, will reduce moth numbers by pulling out all the males before they mate. A new development from Exosect is the Exosect moth confusion system. This has been used successfully to keep moth populations low in historic properties and could reduce moth numbers in domestic houses.

Further information and advice

Make sure you know which species of moth you are dealing with. You also find the related case-bearing clothes moth *Tinea pellionella* attacking carpets and clothing. Many houses are also now infested with Indian meal moth *Plodia interpunctella*, but this will be eating cereals, nuts or pet food and not wool textiles.



A useful new tool is the Exosect moth confusion system

References

- Pinniger, D B [2001] *Pest Management in Museums, Archives and Historic Houses*, Archetype Press, London, UK 115p.
Pinniger D B [2008] *Pest Management – a Practical Guide*. Collections Trust, Cambridge 52p.
Collections Trust website www.collections.trust.org.uk

Take the Pest Test

In this new occasional series BASIS is making 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 technical feature on clothes moths and then complete the questions below.

Try to answer them all in one sitting and without referring back to the article. **Take care as some questions may have more than one correct answer so tick all the answers you believe are correct.** **SEND COMPLETED QUESTIONS** to: **Pest** Magazine, Foxhill, Stanford on Soar, Loughborough Leicestershire LE12 5PZ. We will contact you with your result and if all your answers are correct we will send your details to BASIS who will credit the CPD points to you.

1	Why have numbers of clothes moths increased recently?	4	Under what conditions are you likely to get the most damage from clothes moths?
	a) More natural fibres being used <input type="checkbox"/>		a) Cold and damp buildings <input type="checkbox"/>
	b) Warmer summers and milder winters <input type="checkbox"/>		b) Cool buildings <input type="checkbox"/>
	c) Increase in foreign travel <input type="checkbox"/>		c) Warm buildings <input type="checkbox"/>
	d) Fewer moth proofers being used <input type="checkbox"/>		d) Wet and warm buildings <input type="checkbox"/>
2	Where should you look for moth larvae?	5	What is the best way to eliminate a clothes moth infestation?
	a) In dark, undisturbed places <input type="checkbox"/>		a) Apply insecticides regularly <input type="checkbox"/>
	b) On kitchen surfaces <input type="checkbox"/>		b) Use cold temperatures <input type="checkbox"/>
	c) In the loft <input type="checkbox"/>		c) Clean thoroughly <input type="checkbox"/>
	d) In light and airy rooms <input type="checkbox"/>		d) A combination of all of these activities <input type="checkbox"/>
3	What are the gritty pellets found on infested items?	6	What can be done to prevent infestation?
	a) Silk cases <input type="checkbox"/>		a) Turn off heating <input type="checkbox"/>
	b) Eggs <input type="checkbox"/>		b) Keep windows closed <input type="checkbox"/>
	c) Skin fragments <input type="checkbox"/>		c) Keep things clean <input type="checkbox"/>
	d) Excreta <input type="checkbox"/>		d) Spray regularly <input type="checkbox"/>
Name:		Tel:	
		PROMPT registration number:	
Email:			

Webbing clothes moths facts

- Their scientific name is *Tineola bisselliella*.
- Adult moths do not eat.
- Female moths will lay up to 100 eggs.
- The larvae cause the damage.
- The larvae live in silken tubes which they make.
- Larvae eat things with high levels of animal protein, wool, fur, feathers and skins.
- The gritty pellets found on infested objects, called frass, are excreta and not eggs.
- The life cycle in unheated buildings takes one year.
- In hot buildings, there may be two or three generations per year.
- The pheromone only attracts male moths.

DON'T GET STUNG THIS SUMMER

Giant 600ml can-sprays up to 18 feet!
0.25% Permethrin • 0.24% Tetramethrin

Very fast knockdown

ONLY £6.32 per 600ml aerosol

Available over **LODI UK** and **SX Environmental**

Call 01384 404242
sales@lodi-uk.com | www.lodi-uk.com

Use pesticides safely. Always read the label

Logistics, logistics, logistics

Rentokil wins £24 million contract in Libya

Post codes and street addresses; we don't give them a second thought. If anything, with Sat Nav we've all become more dependent on them. But imagine the logistical challenge of placing and monitoring 150,000 rodenticide bait boxes in cities with neither post codes nor proper street addresses. How do you keep track?

That's precisely the problem that Richard Jones, Rentokil's general manager in Libya, is facing. Richard is leading a team of 32 Rentokil specialists now working in that country on a three-year, £24 million government contract to control chronic rat problems in Tripoli, Benghazi and Misratah.

The bait boxes are principally being used to monitor activity and gauge efficacy," explains Welshman Richard, whose nickname is now Taffy Gaddafi. "Gel, dust, gassing, burrow baiting, sewer baiting, sticky boards and traps are all being used."

"To get round the logistics problems we've developed dual language PDA software with GPS. The technology is linked to a bespoke database which provides customer reporting and visual interpretation via a link to Google Earth. The technology is also helping us gain an understanding of infestation hotspots," he adds.

Rentokil has already set up a comprehensive training programme, run to BPCA standards, and including both classroom and field-based elements. Alongside it is an intensive 12-week English course.



In the desert near Tobruk. Left to right: Richard Jones, general manager Rentokil Libya, Gary Mitchell, country operations manager, Mabruk Shadi, public relations manager and Eng. Ibrahim Masoud Ben Dakel member of the contract monitoring committee, Ministry for Public Utilities, Libya

The former pariah state run by Colonel Gaddafi called in Rentokil after seeing an alarming increase in the rat population giving rise to serious public health concerns.

As well as the usual leptospirosis, *Salmonella typhenterium*, *Eosinophilic meningitis* and rat bite fever, Libya is also confronted with the specific problem of the sand-fly. This is a vector for leishmaniasis, a serious disease prevalent in North Africa and the Middle East.

The sand-fly is harboured by the fat sand rat (*Psammomys obesus*), which presents a particular challenge. Since they only feed on salt bushes, getting them to ingest an anticoagulant is difficult. "Even if you succeed using a dusting method for example, their immune system is highly developed so it doesn't really touch them," explains Richard. "The only real option is a Phostoxin treatment but this can prove difficult as the burrows are in very dry and sandy terrain."

Another problem, which has recently reared its head after many years absence, is bubonic plague. The disease has already claimed its first victim in the Tobruk area.

The most numerous problem species is the Norway rat (*Rattus norvegicus*) but

the company is also dealing with the roof or black rat (*Rattus rattus*). Each technician has a 1km by 1km zone and each is collecting up to 100 dead Norway rats per day," adds Richard.

Since there is no information about resistance in Libya, Rentokil is taking the precaution of working with Reading University to conduct DNA analysis on specimens from the three cities. "That way we can be sure that the products we are using – bromadiolone, difenacoum and Phostoxin – are effective," says Richard.

The other big challenge is to improve awareness and understanding. This is being tackled in a number of ways targeting national government and local authorities and institutions such as schools, hospitals, mosques, trade associations and the police.

The work includes lobbying for appropriate pest control related legislation (such as limiting the sale of professional use only products to the public), more effective waste management and more environmental health inspections. There is also a general public campaign to raise awareness of the risks posed by rats, to try to reduce fly tipping and to enlist support so that bait stations are not vandalised or stolen.

"It's early days yet, but we are confident that we can significantly reduce the rat population in the coming months and years," says Richard, "It's been great to see how enthusiastic the public are. They are obviously keen to remedy the pest problem and are eager to help."



Raising public awareness about the risks and enlisting local support is an important part of the programme

BASF
The Chemical Company

FENDONA®
Use it with confidence

- **Contains the pyrethroid, alpha-cypermethrin, which provides:**
 - High levels of control (high knockdown and flushing effect) at exceptionally low doses
 - Activity against strains resistant to non-pyrethroid insecticides
- **Optimised formulation giving:**
 - Outstanding performance on all types of surface
 - Does not smell, corrode or stain treated surfaces
- **Integrated Pest Management:**
 - Broad spectrum control of all major hygiene pests
 - Associated with Tenopa® (contains IGR active ingredient), longer persistence of action

BASF supports alpha-cypermethrin in the Biocidal Products Directive
Use biocides safely. Always read the label and product information before use.

® = Registered trademark of BASF

BASF plc, P.O. Box 4, Earl Road,
Cheadle Hulme, Cheadle, Cheshire
SK8 6QG, U.K.
Telephone 0161 485 6222
Fax 0161 485 2229



Introducing the carbon dioxide gas

CO₂ saves valuable doll collection

Fumigation specialist Igrox has successfully used carbon dioxide (CO₂) to rescue a nationally important collection of dolls at the Strangers Hall museum in Norwich.

Protecting historic buildings and museum collections is a specialist activity in the pest control sector. However, as with all pest management, the first step is to get the basic housekeeping right. David Cross technical director at Igrox explains: "The importance of routine maintenance and cleaning cannot be over emphasised but it also needs to be backed up by a thorough insect monitoring programme so that action can be taken to eradicate any pest infestation before it really takes hold," he says.

Whilst the items that need to be fumigated may be very valuable, museums rarely have huge pest control budgets so, if an infestation is detected, cost-effective solutions are required.

David continues: "We were recently involved in eradicating an infestation of common webbing clothes moth (*Tineola bisselliella*), case bearing clothes moth (*Tinea pellionella*) and carpet beetle (*Anthrenus verbasci*) at the Strangers Hall museum in Norwich."

The Strangers Hall collection of 25,000 objects reflects the way in which ordinary people have lived through the centuries. It includes everything from vacuum cleaners, Valentine cards, jigsaw puzzles and jelly moulds to snuff boxes, scent bottles, phonographs and photograph albums.

The museum already used freezing as part of an IPM strategy and had on-site facilities for this. However not all of the infested objects were suitable for freezing. In particular, Strangers Hall holds a nationally important collection of toys, including over 500 dolls. Dolls in the collection are made from a variety of vulnerable materials including plastics, ceramic bisque, wax, papier-mâché and fragile decorated textiles. The dolls and other soft toys had had to be removed from display because of the insect infestation which began to take hold back in 2006 so a solution was desperately needed.

A number of options were considered. The Thermo Lignum process, which uses high temperatures combined with controlled relative humidity, proved to be too expensive. It was also potentially incompatible with some of the objects in the collections, such as wax. The use of low oxygen atmospheres using nitrogen or argon looked promising. By depleting the oxygen supply in a given environment for an extended period, the

insects are killed. No suitable provider could be found so the museum turned to Igrox.

To conduct the fumigation a special 10 cubic metre CO₂ bubble was constructed from an aluminium laminate. A ground sheet was first laid on top of a protective layer of corrugated card, onto which the boxed doll collection was arranged on temporary shelving. The space required was kept as small as possible by arranging the boxes tightly and the whole collection was enveloped in a top sheet of aluminium laminate carefully heat sealed together.

Air was then sucked out of the bubble and CO₂ gas pumped in through a humidifier to achieve approximately 50% relative

humidity. The level of CO₂ gas was checked after 24 hours, 48 hours and then at weekly intervals to ensure that the concentration did not fall below 60% over the full three weeks of the fumigation period, thereby ensuring complete insect mortality.

"It is well known that CO₂ has an important role in insect control," adds David Cross. "This project once again proves its validity and has demonstrated how flexible a tool it can be in terms of the objects being treated and the size of the bubble required to do the job. Igrox has always been at the forefront when it comes to innovations in fumigation work and this project has allowed us to add another element to the services that we are

able to offer to the heritage industry."

Man-Yee Liu, joint head of conservation for the Norfolk Museums & Archaeology Service said: "Igrox provided an efficient on-site service appropriate to the needs of the collection. They successfully overcame the challenges of limited access and working in a building which remained open to the public throughout."

The IPM strategy of effective housekeeping and eradication using a combination of freezing and CO₂ treatments piloted at the Strangers Hall is now being extended and developed to deal with other pest problems within the Norfolk Museums & Archaeological Service.



The infested dolls, which had to be removed from display, were stored in boxes
Inset: clothes moth larvae on a doll's head



Preparing the CO₂ bubble



Treatment in progress

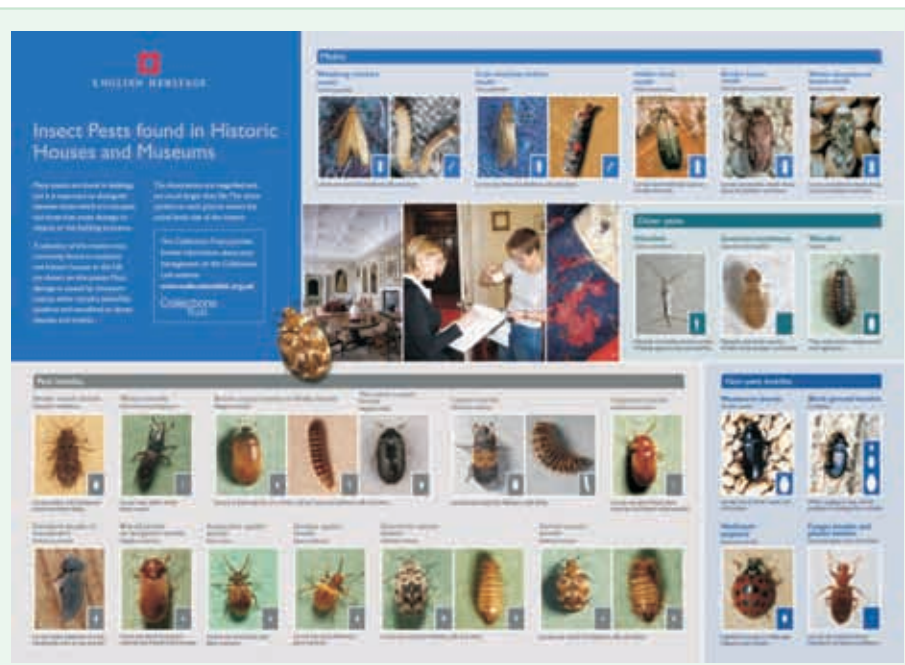


Two of the rescued dolls

New insect pests poster

English Heritage and the Collections Trust have published a new identification poster. This is an update to the original poster first published in 1999. Much has changed over the past ten years with some species declining, others increasing and new species being found. The new poster includes clear images of these new pests, together with some of the more familiar ones. The larvae of key species are also illustrated. There are life-sized silhouettes of all pests featured, along with details of the damage they can cause.

Free copies are available from English Heritage Customer Services on 0870 3331181 or email customers@english-heritage.org.uk Please quote Product code: 52010. Alternatively, order online from the Collections Trust. Go to www.collectionslink.org.uk/news/004933.html





FOR TRAINING



FOR NEW PRODUCTS



FOR CUSTOMER SERVICE



MAKE YOUR

CALL NOW FOR YOUR FREE 2009 CATALOGUE AND TRAINING PACK

0800 0851 451
www.pestcontrolonline.com

WHAT'S UGLIER THAN A DEAD MOUSE IN A TRAP?

We're sure you can think of something...but, to your customers, a dead mouse is disgusting.

So we developed the **Snap-E Mousetraps** Cover to keep mousetraps and dead rodents concealed and out of reach.

Snap-E[®] COVER



- Can be used with wooden snap traps or Snap-E mousetraps
- Keeps children & pets away from traps
- No chemicals
- Safety key required to prevent accidentally opening
- Rugged construction
- Inspection holes
- Blends with surroundings
- Available in white, black, grey and brown
- Use in common areas

Call your local distributor today for all of your Kness supplies

Kness
641-932-7846
www.kness.com

More ways to skin a cat – well – a fly actually!

Faced with a request from a customer, staff at PestWest put their heads together to solve a problem.

The problem was one of steam rising from coffee machines in places such as petrol filling stations and convenience type stores. Flies are attracted to the lactose from the milk which is carried upwards in the steam and collects on the ceiling attracting flies. However, fitting any type of electronic fly killing (EFK) unit is tricky as space is often at a premium and any front-of-house unit needs to be discreet as well as effective.

Taking up the challenge, PestWest has developed the On-Top Pro. This innovative EFK fits easily and discreetly into new or existing suspended-ceilings.

It comes with a Zintec steel body with a painted aluminium

www.pestwest.com



New passive bedbug monitor

Joining the ever-growing variations of bedbug monitors comes a new 'passive' variety designed to help monitor their presence in hotels, institutions, multi-occupancy accommodation with high resident turnover, domestic premises or any premises where activity is suspected. The device has been developed using proven specifications and methodology and has a Certificate of Registration of Design.



The monitor relies on the fact that bedbugs harbour in cracks and crevices, usually close to their host and excrete excess liquid from their gut before entering a narrow harbourage. The layers of corrugated cardboard in the monitor mimic the usual favoured harbourages and the light colouration of the trap will show up the excreted gut contents as red or brown smears and spots.

The monitor is available from both Igrox and Barretline Environmental Health.

www.igrox.co.uk or www.barretline.co.uk/health

Talunex is back



All those who undertake rabbit, rat or mole control will be pleased to hear that supplies of Talunex will, once again, be back on-stream.

Orders can be placed with distributors now, but product will not be available until after 15 September. This is good news, as it will be in time for the main autumn usage season.

www.certiseurope.co.uk



No-go for wasps and rodents

Weep Hole Fittings, from Killgerm, are a new solution to avoid rodents and wasps entering cavity walls through drainage and ventilation holes. They are quick and easy to fit with no tools necessary.

This neat idea provides outstanding flexibility. Made of strong stainless spring steel they fit into holes up to 6cm high neatly, securely and discreetly.

www.killgerm.com

Out of sight, but not out of mind

The Snap-E Cover mousetraps is specifically designed for use in common areas. Each unit can accommodate two mousetraps and by being long and thin, both traps and their catch are out of sight and out of reach of children and pets.

Made of a rugged plastic, the Snap-E Cover comes in four colours – white, black, grey and brown. It can also be painted, so as to make it even less visible.

Each unit holds two mousetraps – which can either be wooden or Snap-E traps. A safety key, provided with each unit, is required to open the cover. Inspection holes are built into the top of the cover to enable easy inspection.

www.kness.com



No flies on Barretline

Flymax is a ready-to-use, multi-purpose insecticide, ideal for many uses in public health insect control says the suppliers, Barretline Environmental Health.

Containing permethrin and formulated in a light oil, it is a ready-to-use product and can be employed as either a surface treatment or space spray.

For large scale treatments of flying insects, Flymax can be used through a thermal fogger.

With smaller scale indoor treatments, a cold misting machine can be employed.

When used through a conventional compression sprayer, it will control a wide variety of crawling insects, with residual action dependent upon the surfaces treated.

www.barretline.co.uk/health

Designed for fussy-feeding mice

Developed for mice that are reluctant to feed from edible baits, the new Sorex difenacoum-based contact gel is a ready-to-use gel. It works best when placed in areas where mice are known to travel.

This gel has been specifically designed to provide mouse control in situations where conventional feeding take-up rates are low, or where there is an abundance of alternative foodstuffs available.

Packed in 280g tubes, each application should be replenished on a weekly basis to ensure effective results, says manufacturer, Sorex.

www.sorex.com



Experienced top-notch technician required

Enviroguard is a totally independent pest prevention specialist. Due to an expansion of our activities, we require an additional experienced pest control technician. Ideally one based in the Oxford area.

- Do you consider yourself to be one of the best technicians?
- Do you really enjoy the pest control industry?
- Do you expect to be well rewarded for the effort and passion you put into your work?
- Do you expect continuous training and a progressive career path?

If YES – talk to John Somner, director of Enviroguard, in absolute confidence.
Phone 01892 870164.

enviroguard

Pest Control Courses



- Rodent Control
- Rabbit and Mole Control
- Grey Squirrel Control
- Management of Pests in Grain Stores
- Management of Flies in Livestock Housing
- Domestic Insect Control

www.lantra-awards.co.uk
024 7641 9703

PestWorld 2009

October 26-29, 2009
The Venetian Palazzo Resort-Hotel-Casino
Las Vegas, Nevada

Save the dates for the largest gathering in the world of pest management professionals, PestWorld 2009, October 26-29 at The Venetian Palazzo Resort-Hotel-Casino in Las Vegas, Nevada.

During the course of four exciting days, PestWorld 2009 will feature valuable technical and management educational sessions, an expansive trade show, and networking opportunities you won't find anywhere else.

Located along the legendary Strip of Las Vegas, Nevada, beauty and grace surround you at The Venetian Palazzo. From the world's largest standard suites and the city's most elegant casino to 19 remarkable restaurants and mesmerizing entertainment, The Venetian Palazzo will provide you with a memorable stay. To make your hotel reservations, call 702-414-1000 to receive the group rate of \$179 per night for the nights of October 25-29.

PestWorld
2 0 0 9



For more information, visit npmapestworld.org/events.

	DAY	EVENT	VENUE	FIND OUT MORE
2009 SEPTEMBER	8-12	European Vertebrate Pest Management Conference	Lyon, France	Email: 7EVP@vet-lyon.fr
	21-23	Best of the Best	East Midlands Conference Centre	www.cieh.org/events
	23	Life After Methyl Bromide II	Holiday Inn High Wycombe	info@sofht.co.uk
	24	Benelux Pest 2009	Zoetermeer The Netherlands	pcn@ntservices.nl
OCTOBER	26-29	PestWorld 2009	Las Vegas, USA	www.pestworld.org
NOVEMBER	4	PestTech 2009	National Motor Cycle Museum	www.npta.org.uk
	4	Pest Control News dinner	Windmill Village Hotel	Email: editor@pestcontrolnews.com
	14-16	Parasitec 2009	Maghreb, Algeria	www.parasitec.org
	19	SOFHT 30th Anniversary Lecture & Lunch	Savoy Hotel, London	Email: admin@sofht.co.uk
	25-27	FAOPMA 2009	Beijing, China	www.cpcn.cn
2010 FEBRUARY	18-19	Eurocido 2010	Dortmund Germany	www.eurocido.de
	24-25	TecnoPlagas 2010	Madrid, Spain	www.technoplagas.es
APRIL	20-21	Pest-Ventures 2010	Kegworth Nottinghamshire	Tel: 01664 822678

PestWorld 2009 – the international event not to miss



© Las Vegas News Bureau

Held each year and organised by the National Pest Management Association (NPMA), PestWorld is the largest and most international gathering in the professional pest controllers' calendar. If you have never attended it is certainly worth the effort, if only to experience the scale of the industry on such an international basis.

If any added incentive is required, this year it is being held at the Venetian Palazzo Resort-Hotel-Casino in Las Vegas, Nevada, USA from 26-29 October 2009.

In total over 3,000 pest management professionals attend, at least 500 of which come from overseas representing over 55 countries. The exhibition is the heart of the event and features over 150 exhibitors representing every segment of the pest management industry.

For the international visitor there is an international hospitality lounge which overseas delegates can make their base,

as well as a fully functioning internet café. Delegates attending for the first time are invited to a wine and cheese open house reception, as well as the international delegates' reception which is always a highlight of the event. Lady delegates are also especially welcome at the Professional Women in Pest Management (PWIPM) reception.

There are endless educational sessions delegates can attend covering virtually every technical and commercial topic relating to pest control. The powerful line-up of keynote speakers includes Christopher Gardner, the inspiration for the film *The Pursuit of Happiness*. He will be joined by Bob Pritchard, a global marketing expert and winner of the coveted International Marketer of the Year award.

The PestWorld 2009 programme of events and conference registration is available at www.npmapestworld.org/events.

Who says you can't get them all?



SOLO® Bloxx™

Every technician knows that the true challenge is not getting rid of the first couple of rodents, but the last stubborn few. SOLO Blox combines the strength of brodifacoum with the exceptional palatability of Bell's superior bait formulations to create a powerful weapon to help you get every last rodent. SOLO is especially effective on mouse populations that are difficult to control. Use SOLO to get the job done. Available from your Bell distributor.

Use rodenticides safely. Always read the label and product information before use. Solo Blox contains Brodifacoum.



Demand The Best

www.bellabs.com • emea@bellabs.com

