

# PestXpert

NEWS & ADVICE

ISSUE 1

## The return of the Bed Bug

As Bed bug populations soar fighting them is one of the PCOs most demanding challenges



Bed bugs are probably the oldest insect pest associated with human misery. Although they have never been associated with transmitting disease to humans their dependent parasitism of man has been a scourge since history began. Within recent years, bed bugs have returned with a vengeance. For many PCOs, bed bugs are currently creating more call-backs than all other target pests.

Bed bug treatment is complicated and may be perceived as being a challenge to today's PCOs. Plan your treatment along the basic guidelines of: a detailed and thorough inspection,

preparation; treatment; and follow-up. Make these plans specific for the types of infestation that you will be treating.

Apartments, family homes, hotels, nursing homes and hospitals will each have specific requirements and unique harbourage sites that require attention. As an example, almost all hotels use a head-board fastened to the wall above the bed. This practice creates a void behind the head-board that may become heavily infested.

### Inspection

When inspecting, use a bright flashlight and magnification

## WELCOME!

Welcome to the first issue of the new newsletter from Bayer Environmental Science. We aim to bring you product news, advice, and assistance and we hope you will enjoy this new publication.

tools. Bed bugs, eggs and faecal deposits are very small and may go unnoticed with a casual inspection. No potential harbourage site should be ignored.

Bed bugs will infest bed frames, mattresses, skirting boards, door frames, behind electrical wall sockets, behind wall posters, between books and magazines on shelves and in racks. While inspecting modern sleeping systems (i.e. waterbeds, air mattresses, and foam pads) be sure to inspect the entire structure of the system.

### Preparation

Thorough cleaning makes pest control more effective. Prior to treatment ask customers to strip beds down to the bare sleeping surface. Bedding (sheets, blankets, comforters, covers, and duvets) should be laundered or professionally cleaned. Personal items (stuffed animals, soft toys, blankets) should be removed and cleaned. Clutter and clothing should be removed from furniture tops and floors. Continued on page 5...



Bayer Environmental Science

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Watch out for us at PestTech on November 5th

Full product and label information is available at

[pestcontrol-expert.com](http://pestcontrol-expert.com)

# WHAT'S NEW

## K-Obiol®



Bayer Environmental Science is delighted to introduce K-Obiol® EC25 and K-Obiol® ULV6 Grain Protectants.

### Pyrethroid formulations

Both products are modern pyrethroid formulations containing Deltamethrin, synergised with piperonyl butoxide for the control of all stored product insects known to infest grain and pulses. This pyrethroid formulation is an ideal alternative to organophosphorus formulations.

### No with-holding period

The Maximum Residue Limit (MRL) nominated for deltamethrin is 2mg/kg in grain. When K-Obiol® EC25 or K-Obiol® ULV6 are applied at their recommended rate, the residue level (0.25mg/kg) will be 8 times lower than the MRL. On finished, manufactured product, flour and bread: no residues over the MRL are found as deltamethrin does not significantly penetrate the grain but remains on the bran. Within hard wheat manufactured products, semolina and pasta: no residues over the MRL of deltamethrin were detected. In malting: no residues over the MRL of deltamethrin is found in wort or beer, and therefore has no effect on beer.

### Admixture and building fabric treatment

Both formulations are liquid grain protectant admixtures. K-Obiol® EC25 can be applied to the fabric of buildings.

K-Obiol® is accepted for use by the Brewing Research International (BRI) and the National Association of British and Irish Millers (NABIM).



### Areas of use

Both formulations can be used during grain harvesting as admixtures. K-Obiol® EC25 can also be used over the fabric of grain storage buildings (see application rates).

### Insects controlled

Both formulations control stored product pests including crawling insects such as grain weevils, flour beetles, grain borers, saw-toothed grain beetles, bean weevils and flying insects such as rice moths, indian meal moths and grain moths.

Please contact our office or Clive Evers on 07973 210232 for further information. Alternatively please visit our website at: [www.pestcontrol-expert.com](http://www.pestcontrol-expert.com)

# Fleas are year-round pest



With over 2,000 species and counting effective Flea Control starts with Ficam W® & K-Othrine®

Have you recently received calls about flea control? Do you think that flea control is a thing of the past? Well, think again, Fleas are back and can be a year-round pest.

There are about 2,000 species of fleas. They are generally described as 1-8mm long; brownish in colour, the body laterally compressed (streamlined) and covered with backward-directed bristles; piercing mouth parts; no wings, complete metamorphosis with egg, larvae, pupae and adult stages.

Adult fleas live exclusively as parasites feeding on the blood of their host animal and consequently they can be vectors of disease. Bubonic plague and murine typhus are examples of diseases spread by oriental rat fleas. Dog and cat fleas are intermediate hosts of tapeworms that can infect humans if ingested. Perhaps the most common complaint associated with flea infestations is the skin irritation caused by flea bites. In this article we discuss the cat flea, *Ctenocephalides felis*. It is the most common flea species encountered by PMPs.

### Control

#### Hygiene/management

Fleas are always closely associated with the host animal. Regular cleaning of their bedding in hot, soapy water will help reduce the eggs, larvae and pupae. Regular vacuuming of carpeting (several times a week) will remove eggs and the faecal material the larvae need for development. Also use a vacuum with a crack and crevice nozzle to clean the cracks between floorboards and skirting boards. Remember to ask the customer to vacuum under and around any piece of furniture that the animal may use. When finished vacuuming place the vacuum bag in an outside bin.

#### Insecticidal control

Insecticides can be used to treat infested premises. Ficam W® and K-Othrine® are excellent products to kill adult fleas found in and on carpeting and furniture. They can also be used to treat any crack or crevice that may be harbouring larvae and adults. Ficam W® and K-Othrine® should be combined with an insect

growth regulator (IGR) to provide the best control. Pay particular attention to areas where the host animal spends time resting. Remember to inform the customer that they need to stay away from the area until the carpet has dried; this includes their pet(s).

#### Host treatments

Insecticidal products are available, which have been specifically formulated and registered for use on the host animals. Only these products should be applied to animals and care should be taken to follow the manufacturer's instructions.

## FIGHT THE FLEA

### Ficam® W



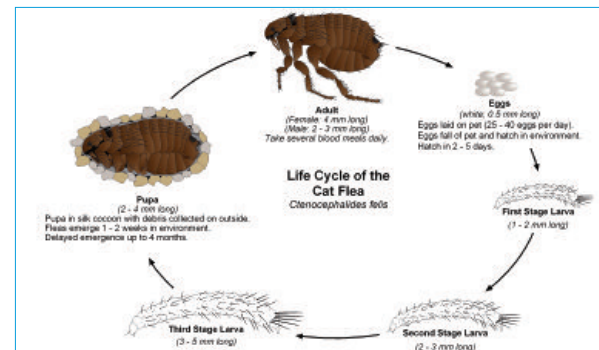
### K-Othrine® WG



### K-Othrine® SC



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



# Partnering to fight Malaria

Bayer CropScience is now part of a major research partnership which is joining forces to eradicate the disease.



In September, 2007 Bayer CropScience signed two landmark agreements with the Innovative Vector Control Consortium (IVCC) made up of leading institutions in the field of the development of vector control products and information systems.

Its strategy is to identify opportunities for the development of new products, strategies and tools for improved vector control and to enable and support those projects through developing partnerships that will provide the resources to bring them to fruition.

The Bayer CropScience projects have a dual approach: short term, the Environmental Science teams will work

closely with the IVCC partners on the development of new, longer lasting formulations of its insecticides deltamethrin and bendiocarb, for use on interior surfaces. Finding a long lasting formulation will reduce the spray rounds and therefore application costs for the countries involved explains Pascal Day, Global Portfolio Management, Bayer Environmental Science.

Longer term, Environmental Science teams are working with the Liverpool School of Tropical Medicine (LSTM) on re-engineering the deltamethrin molecule to overcome growing resistance among mosquito populations.

The LSTM brings its expertise in modifying molecules to identify promising

candidates and Bayer CropScience brings its unique experience in insecticide research, to carry out efficacy screening of resistant mosquito strains and other pests.

Deltamethrin is a pyrethroid, a family of insecticides known for its knock-down effect and good environmental profile. If the scientists beat resistance in the Anopheles mosquito, which is responsible for the spread of malaria, pyrethroids would become an even more powerful tool. For Bayer CropScience, the partnership is an opportunity to conduct research that would not otherwise have been viable given the limited size of the vector control market. The re-engineered pyrethroid is a most ambitious and challenging project, with implications for the entire spectrum of public health insect pests such as resistant mosquitoes, flies and cockroaches, says Pascal Day.

## FREE!

Our brand new A4 information packed Product and Insect Manual running to 94 full colour pages. Packed with illustrations and offering a detailed insight to the most common insect pests round the UK...ideal if you are

sitting your RSPH level 2 certificate!

- Bed bug treatment training DVD
- Insect wallchart
- Flea leaflets

email your requests to: [pestcontrolexpert@bayercropscience.com](mailto:pestcontrolexpert@bayercropscience.com)



## PLUS FREE DVD!

# Bed bugs

Continued from front page...



PCOs should consider using a vacuum to remove bed bugs, their eggs and faecal deposits from harbourages. Use only a specialised designed vacuum with HEPA filters to prevent the spread of potentially irritating debris through the exhaust.

Use a crack & crevice tool to remove bedbugs from deep harbourage such as under skirting boards, under carpet edges (pull the carpet up along the edge), around electric sockets (you may have to loosen the plate first), from the bed frame, inside box springs, inside furniture and from floor cracks.

Use a hand-brush attachment to vacuum mattresses and box springs (especially along seams and folds), upholstered furniture and behind curtains. When vacuuming is complete, remove the vacuum cleaner from the site and place the vacuum bag directly into a plastic bag for immediate disposal.

### Treat Perimeter Walls/Voids

The first step is to treat the wall voids of the room. Loosen sockets and wall fixtures to gain access to wall voids. If access under the skirting board is suitable (i.e. no visible dust will remain in the living space) apply dust. Ficam® D is effective for these types of applications. Wall void dusting is highly recommended when treating flats and hotels. Treat perimeter wall voids first on adjacent rooms. Dust may also be applied along the edge of wall to wall carpets. Pull the

carpet up for treatment and replace the carpet immediately after dusting. No visible residue should be left on the wall or carpet surface. Bed bugs will move from treated to untreated areas, so ensure that adjacent rooms are treated.

### Treat Bed Area

Bed bugs are usually found close to the bed so focus on the headboard, foot board (if present), box spring/support platform and frame. All cracks and crevices of the bed structure must be treated with a residual like Ficam® W and K-Othrine®. If needed, Ficam® W and K-Othrine® can be applied directly to mattresses and sleeping surfaces along seams, tufts and folds. Box spring tops should be treated in an identical manner to mattresses. The underside of the box spring may be sprayed with liquid residuals, or for long residual, treated with a dust such as Ficam® D. After treatment, covering the mattress with a plastic or allergy-proof cover will help prevent re-infestation.

### Treat Furniture (Drawers, Dressers, Sofas and Chairs)

The next step is to do a very thorough crack and crevice treatment to all the furniture in the room. For upholstered furniture, use a similar treatment as the mattress and box spring. Always turn infested furniture over and treat from the bottom. Some furniture may have hollow metal framing (children's bunk beds are an example). Treat inside the metal tubing with a dust.

### Follow Up

Within 5-10 days, plan a return visit and repeat the above inspection. Re-treat any area where bed bugs persist and treat new areas where bugs may have moved to avoid insecticide treatments. Follow up is essential since bed bug eggs will hatch after treatment and possibly find untreated harbourages. In hotels it is highly recommended to leave the room unused until the infestation is eliminated. In cases of heavy infestations, a third visit is recommended.

## BED BUG CONTROL

Ficam® W



Ficam® D



K-Othrine® SC



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

# Quick Bayt® - Dead flies, Dead quick



Quick Bayt® is relatively new to the UK but its use in rural hygiene situations is becoming ever more popular. Here are some of the most frequently asked questions about Quick Bayt®



## Where should I apply it in the building?

The best results are achieved when you apply onto targets (like pieces of card) and hang them as high as is reasonable in the area; where the flies gather. This is where newly emerged flies rest to dry their wings and is likely to be the warmer part of the building. South facing roofs and areas where air movement is at a minimum are good sites.

## Does it smell?

Quick Bayt® has a unique attracting odour which ensures that it will work even if there are competing food sources.

## Does Quick Bayt® control all type of flies?

Predominantly common house flies, but if other flies feed on it they will also be controlled.

For further details on this product, or to view the label or MSDS, please visit [www.pestcontrol-expert.com](http://www.pestcontrol-expert.com)

## How quick is Quick Bayt®?

It works within minutes following the application and is proven to control flies up to 6 weeks.

## Is it difficult to apply?

No, but the trick with Quick Bayt® is to mix in the water in stages so its not too runny, a thick paint is ideal. Quick Bayt® is only applied every 4-6 weeks, this means it is more economical to apply than traditional insecticides spray.

## How does Quick Bayt® work?

It works both as a contact and bait by interrupting the flow of messages in the nervous system, in this way the insect becomes disorientated and unable to function.

## Why is Quick Bayt® red?

Flies are attracted to the contrast between light and dark; the red colour helps in this. We recommend that stripes are painted to reinforce the contrast between light and dark.

## EASY TO APPLY



1 Mix 200g Quick Bayt® with 130ml water to form a paste

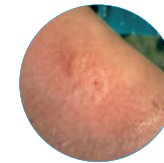


2 Simply paint onto walls or onto hanging card strips



3 Within minutes flies will start to feed and die

# Wasps - the painful truth



## BUG WATCH

Wasps can be regarded as beneficial insects. As the nests develop during the spring and early summer the workers collect insect larvae, scraps of meat and even fish to feed to larvae. They therefore help to control other insect pests and clear carcasses. The workers prefer high energy carbohydrates which they obtain from fruits and the nectar of flowers. They could act as pollinators although are unlikely to be as efficient as honey bees.

In general, however, wasps are regarded as nuisance pests or a threat to health. The need to collect wood to construct nests means that wasps may damage the wooden fabric of buildings, fences and even perhaps garden furniture. They cause a nuisance when they enter kitchens and bakeries. It is the ability of wasps to cause painful stings that concerns most people. The sting is caused by the injection of venom into the victim by means of the modified ovipositor of the females.

Unlike the sting of bees the wasp sting can be withdrawn from the victim. The venom is

haemolytic, haemorrhagic and neurotoxic. Histamine is also present which causes the redness, flare and weal in skin. Wasp stings around the throat may lead to respiratory obstruction.

Alternatively they may be directly toxic causing faintness, respiratory difficulty, vomiting, diarrhoea and perhaps urticaria. These are only likely to appear following a mass attack. The main hazard is the risk of anaphylactic shock arising from repeated stings or even a single one which may lead to death. Symptoms may appear rapidly and include respiratory distress, faintness, an itching rash, swelling of the face and vomiting with abdominal pain, cramp or diarrhoea. Medical assistance should be sought immediately where anaphylactic shock is suspected.

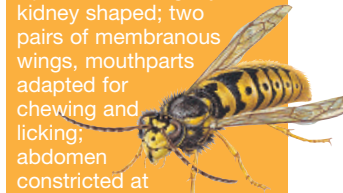
Naturally operators should wear suitable protective clothing including a veil, gloves and tight fitting sleeves and trouser cuffs when treating wasp nests.

**Bayer products Ficom® D, Ficom® W and Pybuthrin® 33 are ideal for dealing with wasp infestations.**

**Wasps** Characteristics: Up to 30mm long; eyes kidney shaped; two pairs of membranous wings, mouthparts adapted for chewing and licking; abdomen constricted at base giving appearance of a waist; metamorphosis complete, with egg, larval, pupal and adult stages; typically possess complex social system.

**Bed Bugs** Characteristics: Two pairs of wings normally present; mouth parts piercing and sucking, forming a beak, or rostrum, normally held under the body. Metamorphosis usually incomplete, with egg and nymphal stages.

**Fleas** Characteristics: Adults 1- 8mm long; brownish in colour, body laterally compressed (streamlined) and covered with backward-directed bristles; reduction or loss of eyes; piercing mouth parts; no wings, muscular legs, with hind limbs adapted for jumping; metamorphosis complete with egg, larval, pupal and adult stages.



# Are you backed by Bayer?

If you are not getting a copy of this newsletter but would like to in the future, please complete your details below to be kept up to date about all Bayer offers and news.

Name \_\_\_\_\_ Company \_\_\_\_\_

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Please cut out and return to Bayer Environmental Science, 230  
Cambridge Science Park, Milton Road, Cambridge CB4 0WB

## BPD LATEST

Bayer Environmental Science would like to take this opportunity to remind you that as S-Bioallethrin is not supported under the Biocidal Products Directive, the following Bayer products cannot be sold, used or stored after the 22nd August 2008:

[K-Othrine® Rapide \(HSE 5996\)](#)  
[ProControl Crawling Insect Killer \(HSE 6116 / PCS 93173\)](#)  
[ProControl Flying Insect Killer \(HSE 6117 / PCS 93174\)](#)



K-Othrine® WG (HSE 8092 / PCS 94096) is the replacement for K-Othrine® Rapide.

- Available in novel 2.5 gram packaging ensures minimal operator exposure and accurate measurement.
- Convenient small pack requires little space for storage.

## BACKED by BAYER

- Technical information
- Product update mailings
- Website downloads
- Reference guides
- Technical support
- Advice
- Global backup
- Research and development
- Training
- Legal assistance
- Products supported through the BPD

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**Bayer Environmental Science**

A Business Group of Bayer CropScience

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