PestXpert
NEWS & ADVICE
ISSUE 2

Maxing the fight against cockroaches

Tried, tested and trusted by PCO's for years, and as seen on ITV's 'Grimebusters', Maxforce still leads the fight against the UK's ever-growing cockroach population.

WELCOME!

Welcome to the second 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.

Many UK pest controllers may have forgotten that Maxforce® was the first cockroach gel that changed cockroach control into the successful treatment that it is today!

Both Maxforce® White IC and Maxforce® contain active ingredients in a gel formulation with an attractive food material base upon which the cockroaches feed. When placed in areas in and around cockroach harbourages and, if possible, between these areas and food sources, cockroaches readily feed on the bait material and crawl away to die. A discernible effect on the cockroach population can be expected within a few days. In fact, Maxforce® White IC will begin to take effect within 10 minutes.

One treatment will control cockroaches for up to three months. Whilst it is still visible the gel will remain pliable and palatable to cockroaches - usually for up to 12 weeks. Where infestations are high, inspect the gel 4 weeks after treatment and replace as necessary.

Maxforce® White IC leaves no visible deposit, has rapid action with long term control and reduces programme visits and call-backs. It is also proven in use and flexible in areas of use with minimal disruption to the client. It also uses the Domino Effect™, where bait is passed from one cockroach to another.

Significance:

Cockroaches are potential vectors of diseases such as dysentery, gastroenteritis, typhoid and poliomyelitis. Their diet is omnivorous and includes fermenting substances, soiled septic dressings, hair, leather, parchment, wallpaper, faeces and food for human consumption. The latter may be contaminated either by the mechanical transfer of causative agents of disease from the insect's body, or by transmission in the faeces. An outbreak of food poisoning in a Brussels hospital subsided immediately when an infestation of B. germanica was controlled.

Cockroaches and their faeces may cause allergic reactions especially amongst sensitive individuals e.g. asthmatics. Exposure may result from ingestion or through the inhalation of material derived from cockroaches in airborne dust. In addition, food may be tainted with the characteristic smell of the cockroach, which is produced by faeces and salivary/ abdominal gland secretions, or by the dead insects.

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Watch out for us at PestTech on November 5th

Full product and label information is available at

pestcontrol-expert.com

WHAT'S NEW

Psssst..... Coming soon!

Introducing Bayer's new aerosol range coming in 2009.

Bayer Environmental Science is proud to announce the registration of their NEW aerosol range for flying and crawling insect control. The NEW Bayer aerosols are the perfect replacements for the extremely effective and reliable 'ProControl' Flying Insect Killer and 'ProControl' Crawling Insect Killer aerosols, which were removed from the market on the 22nd August 2008 due to one of the active ingredients (S-bioallethrin) not being supported through the Biocidal Product Directive.

The two new Bayer aerosols contain a new formulation with a new active ingredient and are approved for professional and amateur use! The best aerosols just got better!

The Bayer aerosols will be available early in the new year from all Bayer distributors. Come and visit us on stand 26 at PestTec to find out more information!

Important reminder for K-Othrine® Rapide & ProControl®

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 / PCS94096) is the replacement for K-Othrine Rapide.

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

Maxing the fight against cockroaches

Continued from front page.

Control:

Successful control of cockroaches is a complex subject, and depends very much upon tailoring control measures to the species concerned.

Assessment of infestations

An assessment of the infestation must be made to determine the species and extent of the infestation. Plans of the area will be required. The entire site should be inspected, including where appropriate, the adjoining premises, and normally inaccessible places, drains etc.

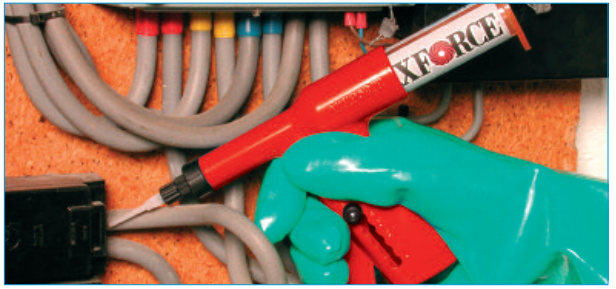
The survey may be carried out using cockroach monitoring traps, ensure that the traps are dated as they are only effective for 4 weeks, monitoring traps must be lifted when Maxforce® is used because of the Domino Effect™. When searching for droppings, cast skins and egg cases etc. a red tinted torch filter is useful because cockroaches prefer to feed in the dark and cannot see light in the red spectrum. A pyrethroid-based aerosol sprayed around and into potential hiding places will flush out cockroaches.

Control Measures

Hygiene/management

A high standard of hygiene is important in the control of cockroaches and involves the following components:

- Deny access to food and water. This will increase cockroach activity and directed movement improving the opportunity for the insects to encounter Maxforce®.
- Deny access to harbourages in buildings or equipment which would otherwise provide hiding places, a means of gaining access and dispersing and breeding sites.
- Buildings and equipment should be designed to minimise the accumulation of debris and facilitate ease of cleaning.
- Surveillance of incoming materials including packaging and laundry.



Cockroach factfile

Life Cycle:

Oriental cockroach

The female produces 5 egg capsules at monthly intervals. The thick-walled resistant capsules, 12mm in length, each contain up to 16 eggs and are cemented to the substrate or dropped in the vicinity of a food supply. They may then be covered over with debris. Nymphs emerge 6-12 weeks later and progress through 7-10 moults before reaching maturity, a process which takes 10 months - 2 years depending upon temperature and food supply. With each successive moult the wings, antennae and cerci develop and the nymph becomes progressively more like the adult. Adults live approximately 4.5 months at 25°C. The slow proliferation of B. orientalis will limit its success where reasonable standards of hygiene exist.

German cockroach

The female of this species produces 4-8 egg capsules at approximately 1 month intervals. Each thick-walled resistant capsule is 6mm long and contains up to 30 eggs, but unlike B. orientalis, the female carries the capsule until just before the eggs hatch - some 2.5 - 4 weeks later. Efforts are made to conceal the capsules near a food source, where the nymphs will hatch and pass through 5-7 moults before reaching maturity. At a temperature of 25°C maturity is reached in 3.5 months, but this time can be profoundly influenced by temperature. Adults live approximately 8.5 months at 25°C.

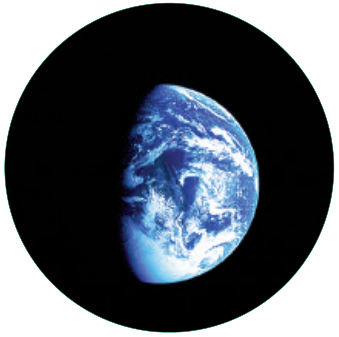
FIGHT THE ROACH

Maxforce® White IC

Maxforce®

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

Protecting tomorrow today



New Bayer technology reduces power consumption and CO^2 emissions by 30 percent.

Bayer has been presented with the 2008 Environmental Award in the category 'Environmentally Friendly Technologies' by the Federation of German Industries (BDI) for its new chlorine production process.

This process reduces power consumption and CO^2 emissions by 30 percent. As part of the 'BDI Day of German Industry 2008', BDI President Jürgen R. Thumann and BDI Director General Dr. Werner Schnappauf presented the prize in Berlin to Dr. Wolfgang Plischke, member of the Board of Management of Bayer AG responsible for Innovation, Technology and Environment.

"Our panel of judges was impressed that a technological innovation that significantly increases energy efficiency has been developed and applied in a particularly relevant area of production within the chemical industry," commented Schnappauf during the awards ceremony. "This new environmentally friendly technology from Bayer is proof of the innovative strength of German industry."

Increasing energy efficiency is one of the climate protection activities that the Group pooled in its Bayer Climate Program at the end of 2007. Other projects include the Climate Check that was developed by Bayer and is used to monitor CO^2 emissions at the company's production sites worldwide.

The 'EcoCommercial Building' – a concept for zero-emission office buildings, developed with partners and currently being implemented by Bayer in India for the first time – and research into the use of the jatropha plant in the production of biodiesel are other key components of the Group's integrated climate protection program.

"For us, technological expertise is bound with a responsibility to use it to bring sustained benefits to mankind and protect the environment – an aim that reflects our Mission Statement 'Bayer: Science For A Better Life" said Plischke in Berlin.

PestTech Nov 5th

The Bayer team look forward to welcoming you at our stand number 26 at PestTech this year. As usual we'll be offering expert advice and giving away our excellent 94 page Product and Insect Manual, wallcharts and environmentally friendly hessian carrier bags!

What's eating your clothes and carpets?

The varied carpet beetle is indigenous to Europe and in England is common south of a line drawn between Bristol and the Wash. The furniture carpet beetle is of subtropical origin and more cold sensitive. Both species are pests of animal products and occasionally food products of plant origin. Consequently, they may be found wherever these commodities are stored or handled.

Carpet beetles are now one of the major pests of textiles, their success being attributed to central heating, which ensures uniform temperatures, and to the increasing use of wall-to-wall carpeting, which allows the insects to breed undisturbed. Furthermore, the success of industrial mothproofing treatments has effectively removed the moth challenge.

Warm, dry conditions are ideal for their development, but they can survive in foodstuffs of very low moisture content, e.g. 11-12%. As its common name suggests the museum beetle is commonly encountered in museums where it is a particular pest of dried specimens. It will also attack textiles and has been recorded as infesting grain. The fur beetle may be found in a wide variety of products including furs, skins, textiles and grain.

Adult carpet beetles live outdoors on pollen and nectar, taken in particular from Umbelliferae and Spiraes. They can also be found wandering on walls and windows. In temperate climates the larvae are particularly evident in the autumn when they wander in search of food and hibernation sites. Carpet beetles thrive in situations where they remain undisturbed, for example beneath carpets, around skirting boards and in wardrobes. Bird and rodent nests, animal remains and dead insects are frequently reservoirs of infestations.

Importance as a pest

Larval forms can cause considerable damage to keratin-containing products such as wool, fur, leather, silk and dried animal remains. Occasionally, food products of plant origin, such as cereals and fibres, will also be attacked.

Damage takes the form of clean, irregular holes and in textiles these generally occur around seams. There is no webbing or excrement present and by the time larvae are observed, considerable damage has often been done. Because of the large number of larval moults, when cast larval skins are seen they tend to exaggerate the extent of the infestation.

Carpet beetles are of limited significance as a health hazard, although they are potential vectors of anthrax. In certain situations the larval hairs cause skin irritation to those exposed to large numbers of the insects.

Control

The wandering habits of these insects means that they frequently infest wide areas, making them difficult to control.

Assessment of infestations

The first step in carpet beetle control is to trace the source of infestation. This may be an old nest, animal remains, wool-based lagging, sound-proofing, wool-based furnishings or the debris that accumulates between and around floorboards.

Hygiene/management

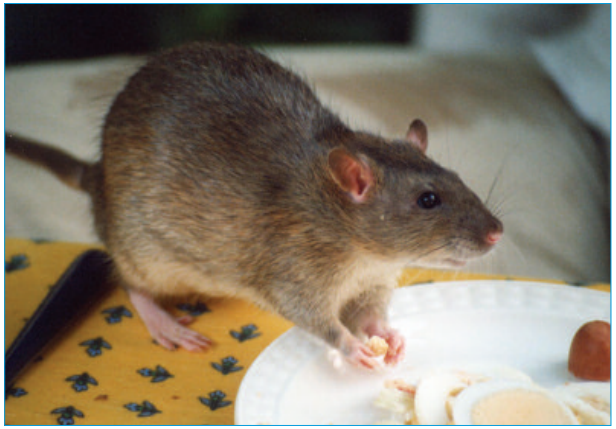
All sources of infestation should be removed and burnt if possible. Routine surveillance and regular cleaning are also important.

Insecticidal control

Thorough surface spray treatments with residual activity (see recommended products) are vital where infestations are extensive in order to ensure that all larvae are killed. Care should be taken when treating carpets and other valuable furnishings.

Rats - the dirty history

Since man first settled in towns and cities, the rat has followed in his footsteps.



Rats are various medium sized, long-tailed rodents of the superfamily Muroidea. “True rats” are members of the genus Rattus, the most important of which to humans are the black rat, Rattus rattus, and the brown rat, Rattus norvegicus. Many members of other rodent genera and families are also called rats and share many characteristics with true rats.

Rats are distinguished from mice by their size; rats generally have bodies longer than 12 cm (5 in).

The best-known rat species are the Black Rat (Rattus rattus) and the Brown Rat (Rattus norvegicus). The group is generally known as the Old World rats or true rats, and originated in Asia. Rats are bigger than most Old World mice, which are their relatives, but seldom weigh over 500 grams (1 lb) in the wild.

The term "rat" is also used in the names of other small mammals which are not true rats. Examples include the North American pack rats, a number of species loosely called kangaroo rats, and others. Rats such as the Bandicoot rat (Bandicota bengalensis) are murine rodents related to true rats, but are not members of the genus Rattus. The widely distributed and problematic commensal species of rats are a minority in this diverse genus. Many species of rats are island endemics and some have become endangered due to habitat loss or competition with the Brown, Black or Polynesian rat.

In Western countries, many people keep domesticated rats as pets. These are of the species R. norvegicus, which originated in the grasslands of China and spread to Europe and eventually, in 1775, to the New World. Pet rats are Brown Rats descended from those bred for research, and are often called "fancy rats", but are the same species as the common city "sewer" rat. Domesticated rats tend to be both more docile than their wild ancestors and more disease prone, presumably due to inbreeding.

While modern wild rats can carry Leptospirosis and some other "zoonotic" conditions (those which can be transferred across species, to humans, for example), these conditions are in fact rarely found (not true in neotropical countries). Wild rats living in good environments are typically healthy and robust animals. Wild rats living in cities may suffer from poor diets and internal parasites and mites, but do not generally spread disease to humans. The normal lifespan of rats ranges from two to five years, and is typically three years. Source www.wikipedia.org

Curing Hospital pest problems

Recent reports reveal a scary situation for hospital patients across the United Kingdom (UK) as NHS trust establishments become breeding grounds for public health pests. Information obtained under the ‘Freedom of Information of Act’ indicates a wide range of pest species with freedom to invade hospitals almost at will, with even some of the most sensitive medical and clinical areas suffering infestation.

The information assembled by the Conservative Party, and widely reported in the national and regional media during August 2008, follows similarly sourced data published exactly 12 months earlier. That showed 46% of hospital kitchens and canteens having poor hygiene standards for, among other reasons, presence of pests including mice and cockroaches. At the time, The Food Standards Agency (FSA) said it would be concerned about any reports of poor hygiene standards associated with any catering business, but that hygiene was critically important when food was prepared and served to hospital patients.

The latest 2008 figures are even more frightening. They show that the public health pests identified and dealt with by pest controllers in hospitals appear to cover virtually the entire range of species likely to be found in the UK. Figures showed 70% of NHS Trusts were forced to call in pest controllers at least 50 times during the period January 2006 and March 2008. According to the figures those trusts most plagued by pests were forced to call out pest controllers more than 1000 times during this 26 month period.

A highly mobile and wide pest spectrum apparently infiltrated virtually every corner of the hospital complex. Typical was the experience of hospitals in the ‘Heart of England’ with NHS trusts across the West Midlands conurbation and into Staffordshire and Shropshire all keeping pest controllers busy.

One hospital was confronted with wasps in the neo-natal unit and another with mosquitoes in its endoscopy department.

Continued on back page...

WATCH OUT FOR

Rats Characteristics: A pronounced social structure and a high reproductive rate guarantee rapid multiplication and thus a rapid spread. Rats eat plant and fruit crops and stored foodstuffs in warehouses. The rat is also a major transmitter of diseases such as Salmonella infections, rat bite fever, Weils disease, Bubonic plague, Typus and trichinellosis. Control is therefore of vital importance.

Cockroaches Characteristics: Generally two pairs of wings, although these may be reduced or even absent; forewings have well developed veins and tend to be hardened, they overlap down the mid-dorsal line; membranous hindwings are folded below forewings; long whip-like, many-segmented antennae; omnivorous, with mouth parts adapted for biting.

Carpet Beetles Characteristics: Forewings hard and leathery, meeting along mid-line of dorsal surface: hindwings membranous, sometimes lacking; biting mouthparts; well developed thorax; complete metamorphosis with egg, larval, pupal and adult stages.

Curing Hospital pest problems...

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Pest controllers were called in to deal with fleas, flying ants and wasps on the wards, ants in X-ray and diabetes departments and cockroaches in the ultrasound unit.

The majority of pest infestations involved non-clinical areas but there were a sizable number of outbreaks nearer to patients who were clearly in for some nasty shocks and unpleasant experiences. Maggots in a patient's slippers, rats in maternity units, mice on children's wards and bedbugs, biting beetles and silverfish were all reported. There was stinging criticism for hospitals with operating theatres and A&E departments harbouring potentially dangerous wasp infestations.

Most NHS trusts, government health departments and bodies played down the reports, although industry watchers had pointed to the risk of insect and mammalian pests harbouring and spreading human disease.

Both the Department of Health and the Health Protection Agency (HPA) virtually dismissed any risk of insect infestations helping to spread infections amongst patients. That said, mosquitoes in hospitals is not something to scoff at when entomologists and epidemiologists say there is real future risk of mosquito borne-diseases like Chikungunya fever, malaria and even dengue fever arriving in the UK. And there is no doubting the risk of disease spread by rodents including salmonella and leptospirosis by, respectively, mice and rats. The Patients Association was apparently unconvinced by soothing words from the authorities and expressed concern at the sort of pests, including rats, bedbugs and fleas, being found. They made the very telling point that if the hospitals concerned were restaurants they would have been closed down and out of business.

The Healthcare Commission, which is responsible for monitoring hygiene in the NHS, says trusts must establish robust procedures to deal with any pest problems that arise. They and the Department of Health emphasise how prompt action and follow through with pest surveillance to avoid pest resurgence is a must.

Use of pest control is always a positive indication of good proactive pest management. Faced with such a wide range of insect and mammalian pests in many different and clearly sensitive situations pest controllers require a matching broad spectrum of products approved for use in hospitals. Bayer Environmental Science has the necessary portfolio of products required to control such wide range of pests in sensitive situations. The Bayer portfolio of products all with approval for use in hospitals comprises: AquaPy, Coopex Insect Powder, Ficam D, Ficam W, K-Othrine 1% SC, K-Othrine WG250, Maxforce White IC and Pybuthrin 33. Many of the products mentioned are approved for use when hospital wards are occupied by patients.

Are you backed by Bayer?

If you are not receiving a copy of this newsletter but would like to in the future, please email your details to pestcontrolexpert@bayercropscience.com

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