

A Breakthrough in Bed Bug Control

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BASF Pest Control Solutions delivers a solution that works

Intro Copy

*What's behind the bed bug's comeback? Nobody knows for sure, but scientists and pest management professionals (PMPs) attribute the resurgence to increased global travel and, widespread resistance to older but widely available pesticides. Fortunately, BASF Pest Control Solutions has developed innovative nonrepellent solutions, like Prescription Treatment® brand **Phantom® Termiticide-Insecticide** and its line of Prescription Treatment® brand **Alpine®** products, to help PMPs fight back against bed bugs.*

The bed bug invasion has put a scare in people across North America. The rapid spread of this tiny bug has topped WebMD's most-talked-about medical stories and most-searched health topics of 2010, as reported by Katie Couric on her [@katiecouric](#) online program. Travelers, homeowners, movie-goers, shoppers – millions of people have felt the bite of this insidious pest, increasingly in locales where they'd least expect it.

The recent invasion has revealed the need for more public education on how to treat bed bug infestations. Concerns have been raised about the need for proper control methods and product use. In August, the U.S. Environmental Protection Agency and U.S. Centers for Disease Control and Prevention published a joint statement on bed bug control, warning Americans against the misuse of pesticides and do-it-yourself applications.^[1] In a Nov. 15, 2010 news release, the Florida Department of Agriculture and Consumer Services also urged caution and advised the public to call a pest management professional to treat bed bug infestations.^[2]

As always, PMPs must approach every situation individually, asking questions to determine the right solution. Homeowners, landlords, hotel managers and business operators often will have very different requirements, so there's no single, simple fix for bed bugs. We must take an Integrated Pest Management (IPM) approach. This means that all treatment methods – chemical, non-chemical or a combination of the methods – should be examined to determine the optimum approach to each bed bug service.

Education: Resistance is the issue

Scientists at the University of Kentucky have published data that shows widespread resistance of bed bugs to a class of insecticides called pyrethroids. Pyrethroid-based pest management products are common in professional pest control and consumer over-the-counter retail industries.

“PMPs do have quite a few tools to choose from,” said Dr. Bob Davis, Market Development Specialist with BASF Pest Control Solutions. “Many are in the pyrethroid class but there are other options available.”

Many chemical manufacturers have invested heavily in research and development of new materials that can help control bed bugs, including pyrethroid resistant strains. One such way is by sidestepping the pyrethroid resistance problem with non-pyrethroid chemistries.

A newer class of chemistry that is available to PMPs that has shown no bed bug resistance, including those resistant to pyrethroids, is **Phantom** Termiticide-Insecticide and the new **Phantom® Pressurized Insecticide**. The active component of these products (called chlorfenapyr) works on a different site within the bed bug than pyrethroids do and thus avoids pyrethroid resistance.

“Another family of products being used by PMPs for bed bug control are the **Alpine** products from BASF,” Davis explained. “These products feature a non-pyrethroid active ingredient that has been granted reduced-risk status for public health use by the EPA. **Alpine** products include a dust, aerosol and ready-to-use foam.”

Each of these products are part of BASF’s [SmartSolution for Bed Bugs](#), which is based on science, IPM techniques, and most notably, new, effective strategies utilizing materials with significant advantages over pyrethroids. The SmartSolution products have shown no indication of resistance in bed bugs. Another key advantage: these products don’t repel bed bugs like pyrethroids can. This is important because bed bugs that survive pyrethroid treatments during the knockdown process can abandon nesting sites and relocate to avoid pyrethroid-treated areas.

Significant mortality within a bed bug colony requires extended exposure to a dry pesticide residue, a process that’s best achieved by treating harborage their areas with nonrepellents. The long-lasting residues from the foundational nonrepellents in the SmartSolution for Bed Bugs will kill bed bugs for an extended period of time.

An IPM Approach to Tackling Bed Bugs

The principle behind IPM is prescribing the best solution for your customer. There are plenty of options out there – some work and some do not.

“Everything has an Achilles heel, so we recommend an IPM approach using different methods to control the problem,” said Bob Hickman, Market Development Specialist with BASF Pest Control Solutions.

For instance, heat treatments have become popular for the treatment of bed bugs but they have no residual control and re-infestation may occur immediately. But heat combined with chemical applications can be highly effective to thoroughly treat a space and provide residual protection.. Such an approach might begin with a pretreatment of pesticides such as **Phantom** and **Alpine**, which are designed to be applied in tight spaces where bed bugs hide like carpet edges, cracks, crevices or other voids like those found in drawers, cabinets or around and behind wall sockets. A heat treatment would be the next step in the eradication process, and then a follow-up chemical application would be the final part of the IPM program.

“It’s also important to treat adjacent rooms with BASF nonrepellent materials to prevent populations from escaping the disruption of their habitat,” said Dr. Jason Meyers, Market Development Specialist for BASF Pest Control Solutions. “These nomadic populations can slowly build in adjoining rooms and may not be noticed by clients until much later.”

Continued Innovation

A bed bug infestation can have an enormous impact on people – emotional as well as physical. Recognizing this, the pest management industry – including manufacturers, PMPs, researchers and government officials at the federal, state and local levels – have come together to develop public education programs, and provide the research and development necessary to bring new solutions for bed bug control to the market and to combat pesticide resistance.

BASF Pest Control Solutions is evaluating new chemistries, and making strides in formulation and delivery technology. For example, the company has developed **Phantom® Pressurized Insecticide** that provides faster control of bed bugs during all life stages, including eggs. BASF has also developed a combination-formulation product that takes advantage of both a longer-term preventative dust and a faster-acting material to provide curative action.

“We’ve made significant progress in combating bed bugs and we’re working hard on the next generation of control materials to help PMPs provide the most effective service,” Davis said.

For more information on **Phantom, Alpine** and BASF Pest Control Solutions products and solutions, including the SmartSolution for Bed Bugs, please visit www.pestcontrol.basf.us. BASF also manages a consumer website, www.bedbuginstitute.com, with basic information about bed bugs, prevention tips, frequently asked questions, an expert Q&A and helpful links to find a Pest Management Professional.

A Prescription Treatment brand Phantom Termiticide-Insecticide, Prescription Treatment brand Phantom Pressurized Insecticide and Alpine Dust Insecticide application can only be performed by a licensed pest control professional.

Always read and follow label directions.

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Are you a hotel manager? Here are some tips on how to handle bed bug problems in your hotel:

- When guests report a bed bug problem, move them to another room (not an adjacent room) immediately and close the room off to other guests. If possible, also close off adjacent rooms so they can be inspected.
- Call a pest management professional (PMP) immediately. PMPs are trained to thoroughly inspect the premises, prescribe the right treatment option and carry out the work.
- Ask your PMP questions such as what products are being used, what they know about **Phantom** and **Alpine** from BASF, what your role is in follow up and how you can prevent infestations from occurring.
- Ask them what a treatment will involve. A PMP may do the following to prepare the room(s) for treatment:
 - Remove pictures and other wall hangings
 - Detach wall fixtures

- Remove electrical face plates
- Remove drawers from cabinets and dressers
- Remove headboards
- Lift and turn box springs and bed platforms over for a thorough inspection
- Carefully inspect upholstered furniture
- Examine wheels, casters, posts and legs of all furniture
- Pull carpet back from the wall to carefully inspect
- Remove curtains to be heat-treated in a dryer, steam cleaned or spot treated with product

Treatment options discussed in the media have included bed bug sniffing dogs, heat and chemical treatments. How do you know which is the right one? Consult a PMP. Bed bugs are very difficult to control. Trying do-it-yourself options could make the problem worse and waste money.

According to a recent survey conducted by the National Pest Management Association and University of Kentucky, 95 percent of pest management professional (PMP) respondents indicated their company has encountered a bed bug infestation in the past year. That's up from only 25 percent prior to 2000. PMPs are getting calls to treat apartments, condos, single-family homes, hotels and motels, college dormitories, moving vans, cabs, buses, laundry facilities and movie theaters.^[3] This shows that bed bugs are affecting a wide range of people across the United States. It also represents a tremendous opportunity to explore new chemistries that have been designed to combat bed bug resistance to the products of the past.

[1] http://www.cdc.gov/nceh/ehs/Publications/Bed_Bugs_CDC-EPA_Statement.htm

[2] <http://www.doacs.state.fl.us/press/2010/11082010.html>

[3] <http://www.pestworld.org/bedbug>