bed bugs
The Problem with Bed Bugs

Few pests pose control challenges as complex as bed bugs. Hard to find, persistent, and increasingly pervasive, bed bugs require considerable professional expertise, and significant client cooperation.

As if that weren't enough, research has shown that bed bug strains showing resistance to pyrethroid insecticides are now widespread throughout the United States. Factor in the repellency-related problems associated with pyrethroids and it's clear a smarter approach to controlling bed bugs is sorely needed.

The SmartSolution for Bed Bugs from BASF Pest Control Solutions is based on the latest research, the Prescription Treatment® IPM approach, and new, effective strategies utilizing breakthrough materials with significant advantages over residual pyrethroids.

This guide is dedicated to discussing the strategy and treatment aspects of controlling bed bugs using a foundation of non-pyrethroid products.

A Non-pyrethroid Foundation

Traditionally, pyrethroids provided quick knockdown of bed bugs. In the past, they have been the repellency and widescan of pyrethroids has made pyrethroids a stand-alone solution.

In fact, control failures of bed bugs might actually occur, as resistance is a genetically conferred trait.
Controlling Active Bed Bug Infestations

Eliminate Exposed Bed Bugs

Vacuuming and other mechanical means of quickly killing and removing exposed bed bugs are recommended as a first step toward controlling an infestation. Focus on accessible harborage and areas disturbed during preparation where bed bugs may have scattered. Nymphs are very small and eggs nearly invisible, so complete reliance on these methods to physically remove all bed bugs is not realistic.

A directed contact treatment for quick reduction of bed bug populations is necessary in most situations where bed bugs are found, especially in complex harborage areas where the mechanical methods are less effective. A tank mix of Phantom® termiticide-insecticide and Prescription Treatment® brand ULD® HydroPy-300® Pyrethrin Concentrate provides quick knockdown of bed bugs. Treating and neutralizing eggs wherever bed bugs are found is also very important. This entails application of an insecticide to exposed bed bugs within a localized area. To ensure that resistance and repellency will not sabotage your control efforts, the smartest approach is to start with a nonrepellent foundation using Phantom termiticide-insecticide and/or Prescription Treatment® brand Phantom® Pressurized Insecticide.

To learn more BASF Proactive Bed Bug Treatment Protocol, visit: pestcontrol.basf.us/campaigns/bed-bug-proactive-program.

Figure 1:
Bed Bug Mortality After Topical Treatment-Lab-Reared

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<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
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Treat Likely Harborages

Crack & Crevice® treatments are common around bed frames, box springs, headboards, and in cracks and crevices associated with baseboards, moldings, carpet edging, wall fixtures, night stands, dressers, and other hard furniture. Spot treatments are common on baseboards, undersides of dressers, and corners of other furniture that bed bugs like. Many have aggregation sites such as the footboard of the bed and mattress and along the wall under the bed. The use of Phantom® Pressurized Insecticide or Prescription Treatment® brand Aspen® Dust Insecticide is recommended for spot and Crack & Crevice treatments in these areas. Void treatments are applied to common hiding spots, including behind the bed, under the mattress, along the wall of the room, and in the corners of the room.

Dusts provide excellent control of bed bugs in voids and other harborage areas. The use of the Prescription Treatment® brand Alpine® Dust Insecticide is recommended, as it is available with the active ingredient dinofuran, makes it a good choice for spot treatments.

*Dinofuran, the nonrepellent active ingredient, is included in the Prescription Treatment® brand Alpine® Dust Insecticide. Reduced Risk is for public health use only.
The BASF Proactive Bed Bug Treatment Protocol

The cost to the hospitality industry of having rooms with bed bug infestations is enormous. By utilizing the BASF Proactive Bed Bug Treatment Protocol, steps can now be taken to prepare a room for the event of bed bug infestations in a way that significantly reduces the likelihood that a bed bug infestation will take hold and spread.

When weighing cost and time commitment involved in the treatment of bed bugs, BASF believes it is important to consider the value proactive treatments can present to customers in the hospitality industry, and other accounts like public transportation, movie theatres, and health care, to name a few.

Achieving proactive success requires insecticides with sufficient residual activity to give reliable results. Multiple classes of chemistry are also important to avoid the problems associated with resistance.

Initial hotel case-study data shows that protocol—utilizing nonrepellent Prescription Treatment® brand Phantom® Pressurized Insecticide, Phantom® termicide-insecticide, and Prescription Treatment® brand Alpine® Dust Insecticide—can successfully stop the spread of bed bugs.

Phantom® Pressurized Insecticide, Phantom® termicide-insecticide, and Alpine® Dust Insecticide are nonrepellent and effective on both pyrethroid susceptible and resistant strains, including pyrethroid-resistant bed bugs. They also utilize three different chemical modes of action to help avoid the development of resistance.

By treating primary bed bug colonization areas twice a year and secondary initiation areas annually (see diagram on page 4), BASF believes existing or future bed bugs will be killed and additional reproduction and reinfection can be controlled.

For complete information on the BASF Proactive Bed Bug Treatment Protocol, visit: pestcontrol.basf.us/campaigns/bed-bug-proactive-program.

Research from the University of Kentucky shows dry deposits of Phantom termicide-insecticide aged 4 months kill bed bugs just as quickly as fresh dry deposits (Figure 2). In another study, Alpine Dust Insecticide was shown to kill bed bugs one year after application (Figure 3).
Smart Support
As always, BASF Pest Control Solutions is committed
to giving you everything you need to tackle your
toughest pest control challenges—not just in terms
of products, but in terms of expertise and support
as well.
You can always find helpful information, training,
marketing support, and more at PestControl.basf.us.
Log on and download brochures, customer cooperation
aids, and treatment scenarios to help you better
understand and prepare for this challenging pest.

Get Smarter
This SmartSolution for Bed Bugs is just one of many
planned BASF SmartSolutions to address the pest
control challenges and issues that have the greatest
impact on our industry and the success of your
business. To inquire about additional SmartSolutions for
ants, German cockroaches, flies, fleas, occasional
invaders, rodents or termites, contact your BASF
Pest Control Solutions sales representative.

The Prescription Treatment® Approach
BASF Pest Control Solutions believes a sound Integrated Pest Management strategy is the cornerstone of successful pest control
and good stewardship. Our five-step Prescription Treatment approach includes the core IPM practices you should always employ
in conjunction with any BASF SmartSolution.

1 Inspect to gather the information that leads to
good decisions.
2 Prescribe a treatment strategy to achieve specific
goals in the account.
3 Communicate with the client to promote cooperation,
establish expectations, and convey value.
4 Treat using effective techniques and materials that support
the strategy.
5 Follow up to assess results.