



Pesticide Efficacy Testing Kit

# LightsOut™

Lab-In-A-Bag

## A Portable, Reusable, Bed bug Pesticide Resistance Testing Kit



"Developed in collaboration with entomologists at the University of Kentucky."

### KIT COMPONENTS:

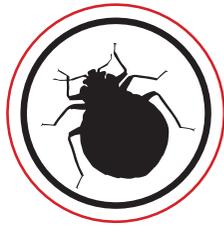
- 1 Cushioned & Insulated carry bag
  - 2 Modular evaluation dishes
  - 3 Interchangeable substrate inserts (furniture fabric, masonite, & bedding fabric)
  - 4 Hand magnifier
  - 5 Specimen collection forceps
  - 6 Dust application brush
  - 7 Grease pencil
  - 8 Cooling pack
- Detailed instructions



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**LightsOut**<sup>™</sup>  
**Lab-In-A-Bag**



## LAB-IN-A-BAG<sup>™</sup> Pesticide Efficacy Kit

The LightsOut Lab-in-A-Bag<sup>™</sup> Pesticide Efficacy Kit was developed to help the pest management industry choose the most effective insecticides, especially when treating for bed bugs. It's the first tool of its kind to be marketed for this purpose. Much as a physician prescribes antibiotics, pest managers will now be able to select the most suitable products and methods to treat a customer's infestation.

**Every Infestation is Different** - No two bed bug infestations are identical in their susceptibility to insecticides. Studies conducted by the University of Kentucky and other institutions have found tremendous variation, with certain compounds performing well against some populations and poorly on others.<sup>1-5</sup> Different formulations of the same compound can also vary in effectiveness, which can be further impacted by whether the substrate is fabric, wood, etc. Consequently, clients would benefit from knowing which products are most effective against their particular infestation.

**Resistance is Rampant** - Bed bugs are highly adept at becoming resistant to insecticides.<sup>4-9</sup> Similar to the genetic 'arms race' between germs and medicine, resistance in bed bugs is widespread and becoming a global predicament. History has shown that these genetic changes in bed bugs can occur swiftly. In the case of DDT, for instance, some bed bug populations were already becoming resistant within the first few years of use. Bed bugs are teeming with genetic mechanisms to resist modern insecticides as well. As manufacturers seek to find replacements, pest managers must use existing products with discernment. Companies offering heat and other non-chemical methods would benefit from knowing which infestations will be harder to control using pesticides. Firms offering both heat and chemical treatment can use the findings to help tailor their choice of management options for the customer.

Although Lab-in-A-Bag<sup>™</sup> was principally designed for bed bugs, the kit can also be used to evaluate products against other pests. Especially those that can be collected in fairly large numbers, and transferred easily into the evaluation dishes (ants, brown marmorated stink bug, Asian lady beetle, etc.).

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