



PUTTING THEIR MONEY

Where the Bed Bugs Are

By Jeff Fenner

Allergy Technologies renewed the bed bug research grant it supports at The Ohio State University.

Amid the many voices calling for increased research funding to study bed bugs, one company stepped up. While it is not uncommon for multi-national chemical manufacturers to fund research projects on new product technology with leading university researchers, it is not the norm for an emerging bed bug product supplier.

Allergy Technologies, manufacturer of *ActiveGuard* (see *product description*, page 36), decided to take an unusual supplier leadership position on bed bug research. The Ambler, Pa.-based company renewed the bed bug research grant it supports at The Ohio State University with another \$100,000 donation. This marks the second consecutive year Allergy Technologies has invested six figures in support of vital research aimed at intensive field and laboratory studies of bed bug behaviors and treatment solutions for this widespread pest.

Leading the research efforts is noted Ohio State entomologist Dr. Susan Jones. She, along with her research team, are conducting studies and trials examining bed bug product efficacy, treatment protocols, application methods, resistance and repellency, and behavior and feeding patterns.

The company's motivation was two-fold. It wanted to (1) clear up misinformation about its product's capabilities (a common problem many bed bug suppliers suffer); and (2) provide third-party confirmation of the effectiveness of *ActiveGuard* to prevent

bed bug infestations. "The grant confirms our confidence in our product as well as our commitment to helping the industry find reliable solutions to eliminate bed bugs," said Allergy Technologies COO Joseph Latino. "Dr. Jones has a remarkable track record and her research results are unimpeachable. She is a straight-shooter — and the data she has produced from her work stands alone in its value."

The valuable information unearthed during the research isn't just for Allergy Technologies' benefit, however, and it will be shared industry-wide. "We have learned a great deal about bed bug feeding habits, behavior and repellency, and plan on sharing that information with the industry," says Latino. "What we are learning is helping refine and perfect future bed bug control strategies for all, and not just limited to *ActiveGuard* applications."

BUILDING CRITICAL BED BUG MASS.

One of the challenges with bed bug research to date has been building large enough populations of the blood-sucking pest to conduct large scale research projects, says Jones. The Allergy Technologies grant has allowed Jones and her team to build one of the largest bed bug collections (it features more than 30 different populations) and launch a series of extensive research projects both in the lab and in the field, where bed bugs are doing battle with residential and commercial customers.

"We have been able to refine the bed bug rearing process and purchase behavioral mapping software to help gain greater insight into these pests," says Jones. "PCOs would be surprised to hear how finicky bed bugs are when it comes to feeding in a laboratory setting versus when they are feeding off humans in hotel rooms, apartments, movie theaters and other places."

Jones says it requires a significant investment of money and people capital to grow and maintain sufficient bed bug populations for research and she has one staff member who dedicates 75 percent of his time to keeping OSU's bed bugs well-fed.

Thus far, the research has yielded a few nuggets of information that have surprised Jones, including the fact that bed bugs move around more than most people think and that there is quite a bit of variability in feeding and behavior patterns from one population to the next.

Another vital area where the research is shedding light is bed bug resistance. Jones says resistance is influenced by formulation selection and that product rotation is important for pest management professionals designing bed bug programs. Dust-type formulations appear to work particularly well against bed bugs, she said.

"Our research has provided a lot of insight not only into bed bug behavior but also on how different treatment technologies can come together into a comprehensive IPM bed bug strategy," says Jones. "The more we know about bed bug feeding behavior and movement, the better able we'll be to design effective treatment strategies to combat these important pests."

Jones added that Ohio State is in the process of preparing and submitting a journal manuscript on bed bug behavioral responses to *ActiveGuard* mattress liners.

SPREADING THE WEALTH.

With research being part of the fabric of Allergy Technologies' business plan, Latino feels it is the company's responsibility to put this information to work for the whole industry and raise the bar for educating pest management professionals on bed bugs.

"There is a lot of good and bad information out there on bed bug management, and we felt it was important to set the record straight through university-based research," says Latino. "Pest professionals need independent information to find out

what technology works best for them and their customers, and we want to help facilitate that conversation.”

Latino feels the industry is still in search of the elusive silver bullet product or treatment, but he said Allergy Technologies’ energy is being spent on aggregating multiple bronze bullets that complement one another. He feels the focus should be on training and educating pest professionals, and achieving sector specific results, such as the hospitality market and within transient facilities, vertical markets where Allergy Technologies has had a strong impact.

“We want to present proven field-based solutions to the industry that they are able to immediately identify with,” says Latino. “The research we are doing with Dr. Jones will facilitate this process and lead to better results for the entire industry when it comes to developing effective bed bug control strategies.” PCT

The author is a contributing writer for PCT.

A Unique Approach To Bed Bug Management

It’s not an encasement or a heat treatment or an application of a traditional pesticide. It can be used alone or in conjunction with other treatment methods. And above all it helps pest management professionals reduce callbacks and labor time when treating for bed bugs. The product is the *ActiveGuard* mattress liner.

“We have partners, not clients in bed bug management,” says Joseph Latino, chief operating officer of Allergy Technologies, manufacturer of *ActiveGuard*. “We ‘sell’ *ActiveGuard* but we ‘provide’ a greater service — educating our clients and attempting to facilitate their success in delivering effective bed bug management programs.”

ActiveGuard is a fitted sheet that goes over the mattress and box spring and kills bed bugs upon contact. Used as part of a comprehensive bed bug treatment or as a stand-alone preventative to secure the integrity of mattresses and box springs, these liners continue to kill bed bugs continuously for two years, according to the manufacturer. PMPs using the maintenance-free *ActiveGuard* can install the product using only one technician and tears in the liner won’t derail the product’s ability to kill bed bugs typically within 72 hours of contact — even resistant strains studied, the manufacturer reports. “The product is a pro-active approach to bed bug management and can help prevent infestations before they become established,” says Latino. “It is a time-saver for technicians and has been proven to reduce callbacks — two things that can boost a pest professional’s bottom line.”

For more information on *ActiveGuard*, visit www.allergytechnologies.com.



ActiveGuard is a thin, breathable polyester fitted sheet that is uniformly impregnated with permethrin (top photo). It can be simply installed over the mattress and box spring and kills bed bugs upon contact (bottom).



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