This summer, the National Pest Management Association (NPMA) and the University of Kentucky surveyed a nationwide sample of pest management professionals. This summary features the latest findings about the growing bed bug resurgence and references data from the 2010 Bugs Without Borders survey for year-over-year comparisons.

The 2011 Bugs Without Borders Survey - Executive Summary

Bed Bug Infestations Increasing Across America
By Michael F. Potter, Bob Rosenberg and Missy Henriksen

The pest management community has once again weighed in on a topic that for many Americans causes concern and embarrassment: bed bugs. The 2010 survey gave the American public insight into the bed bug resurgence in a way no other survey had before. In 2011, the U.S. pest management industry offers its unique perspective on just how extensive the bed bug invasion is and whether circumstances have improved or gotten worse in the past year. This report highlights the key findings obtained from more than 400 pest management professionals who participated in this survey.

The Resurgence Continues. The survey reveals that nearly every pest management professional (99 percent) – from coast to coast – has encountered a bed bug infestation over the past twelve months, compared to the 95 percent who reported bed bug encounters in 2010. The survey further reveals that bed bug infestations are on the rise, a trend noticed by more than eight out of ten survey respondents (84 percent). This increase is consistent with findings from the 2010 survey.

The respondents offered several explanations for the increase in bed bug infestations, pointing to a surge in travel, a lack of public awareness, and too few precautionary measures being taken. Many respondents also mentioned changes in pest control products and methods and the bugs' resistance to available pesticides.

The majority of respondents – six out of ten – reported that infestations are a year-round phenomenon, seeing no seasonal influence to the pest. However, 25% of professionals indicated they saw a spike in reports during the summer. As people tend to travel more during the summer months it's possible that more people will unknowingly transport bed bugs to their residences after picking them up on their vacation.

**Bed Bugs Are Just About Everywhere** While nine out of ten respondents have treated bed bugs in apartments, condominiums and single-family homes in 2011

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and 2010, in the past year bed bug encounters have become more commonly reported in many other places. For example, PMPs report seeing large increases in the number of bed bug encounters in college dorms, hotels, nursing homes, office buildings, schools and daycare centers, hospitals, public transportation and movie theaters compared to last year.

More specifically, many places experienced double-digit growth in where professionals reported treating bed bugs year-over-year:

- College dorms (54 percent, up from 35 percent a year ago);
- Hotels/motels (80 percent, up from 67 percent a year ago);
- Nursing homes (46 percent, up from 25 percent);
- Office buildings (38 percent, up from 18 percent);
- Schools and day care centers (36 percent, up from 10 percent);
- Hospitals (31 percent, up from 12 percent);
- Transportation (train/bus/taxi) (18 percent up from nine percent);
- Movie theaters (17 percent, up from five percent).

In short, respondents have treated bed bug infestations just about everywhere.

**Public Attitudes** Bed bugs are widely reviled by consumers who get them. In fact, nearly every respondent (98 percent) described bed bug customers as upset and concerned. The most frequent description was "very" concerned (78 percent).

The respondents report that one-quarter of their bed bug customers (25 percent) attempted to treat these pests prior to calling a pest control professional. A year ago, the comparable figure was substantially higher (38 percent), suggesting that in this arena the DIY approach is becoming less popular.

Consumers who <u>do</u> try to eradicate bed bugs often use methods that are both ineffective and dangerous. The respondents offered a myriad of examples, many including the excessive and improper use of insecticides; the use of unregistered insecticides; the misuse of aerosols, foggers, propane heaters, and open flames; and the application of inappropriate, often flammable chemicals, such as kerosene, alcohol, diesel fuel, bleach, and boric acid. The respondents also observed that many customers either do not read the instructions-for-use on insecticide packaging — or simply ignore them. Similar findings from 2010 fostered a conclusion still valid today: When it comes to treating bed bugs, consumers would benefit from more education and help from a professional.

**Finding and Treating Bed Bugs** Used almost universally, visual inspection continues to be the most popular method of finding bed bugs. The respondents noted, however, that other methods are significantly more popular today than they were a year ago. These include passive traps, pitfall traps and canine scent detection, with the latter showing the greatest gain.

Once bed bugs are found, nearly all pest management professionals (99 percent) report using insecticides to treat for bed bugs. Almost as many respondents use mattress encasements or have clients launder the infested items. Fewer respondents – but still more than half – use vacuums or dispose of infested items entirely. The least popular treatments include placing infested items in freezers and pesticide impregnated mattress covers.

When it comes to controlling infestations, bed bugs continue to be the most difficult pest to treat, according to 73 percent of survey respondents. By comparison, 17 percent pointed to ants, nine percent said cockroaches and one percent said termites were the most difficult pests to control.

**Pesticides** Pesticides are available to pest management professionals in a variety of formulations. Liquids and dusts are by far the most popular. Fewer respondents use aerosols, insecticide impregnated resin strips and fumigants. Very few use total release foggers. Furthermore, although many respondents still use pyrethroids, the two most widely used products contain chlorfenapyr, a non-pyrethroid and a new product containing  $\beta$ -cyfluthrin and imidacloprid.

Satisfaction with insecticides is relatively high. Indeed, three out of four respondents (77 percent) are very or somewhat satisfied with the insecticides they use, a modest gain from a year ago (68 percent). Contrary to some research studies, four out of ten respondents (41 percent) said they never encounter a bed bug population resistant to insecticides. Last year, the comparable figure was lower at one out of three (34 percent).

**All in a Few Days' Work** In a typical residential setting, eight out of ten respondents can control a bed bug infestation in two or three visits, with the initial visit lasting almost three hours. Here, little has changed since 2010.

Given the increase in bed bug infestations noted earlier, it is hardly surprising that many respondents report that their bed bug service work is up by more than 50 percent. Also up over 2010 is the percentage of revenue bed bugs contribute to the bottom line for pest management firms, an average of five percent in 2011 compared with 3.6 percent in 2010.

**Best Management Practices (BMPs)** The majority of respondents (78 percent) currently follow the Best Management Practices for bed bugs developed by the NPMA. Fewer than three out of ten, however, needed to alter their bed bug services as a result of the BMPs.

**The Survey** The 2011 Bugs Without Borders Survey was conducted in June and July. Approximately 4,540 pest management professionals from around the country were invited to complete a self-administered, online questionnaire. Completed questionnaires were submitted by 415 respondents in 45 states.

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