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BED BUG SURVEY 2013

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Drywood Termite (Blattodea: Kalotermitidae)

Termites are known to be cryptic, but drywood termites take that to the extreme. They live completely within dry, sound wood, which functions as a colony site and food source. Drywood termites do not need to maintain a soil contact as they are able to extract all the moisture they need from the wood they consume and metabolic processes. Living within their food source provides drywood termites great protection from the environment and predators and also makes them very difficult to detect. Drywood colonies are smaller than native subterranean termite colonies and consume much less wood per colony.

BED BUG SURVEY 2013
By Michael F. Potter, Kenneth F. Haynes, Jim Fredericks and Missy Henriksen
In 2010 and 2011, the National Pest Management Association (NPMA) and the University of Kentucky surveyed the pest management industry about the growing bed bug resurgence. We polled U.S. firms again this year to learn what was new to report.

BED BUGS: CLOSING IN ON BETTER CONTROL
By Susan Jennings, U.S. Environmental Protection Agency’s Office of Pesticide Programs
As the first responders when a new infestation is identified, pest management professionals have a critical role to play in both control and in decreasing transmissions. In this article, Jennings outlines the EPA’s ongoing efforts to support your role from regulatory and educational perspectives, recognizing that both are crucial to successfully beating back these bugs.

CYBER SECURITY FOR PEST CONTROL OPERATORS: MOBILE DEVICES INCREASE BUSINESS RISKS
By Gary Shapiro, Weisburger Insurance Brokerage
Privacy and cyber security risks are no longer just limited to computers. Smartphones and tablets have become just as essential to pest control businesses in recent years as computers. While these mobile devices are valuable and convenient for businesses in almost all industries; pest control operators are always on the move, and increasingly doing more business on their mobile devices. Are increased efficiency, mobility and accessibility worth the increased risk of a data breach?
EXECUTIVE VICE PRESIDENT’S MESSAGE

Make Connections. Find Answers. Increase Profits

With PestWorld 2013 just weeks away, I’d like to use my space this issue to invite you to attend this year’s event, October 22–25 in Phoenix, Arizona.

PestWorld 2013 is the opportunity to advance you, and will provide participants with the tools and education needed to succeed in our industry. Over 3,000 pest management professionals, researchers, and industry suppliers and distributors from across the globe make the annual trip to the industry’s single best opportunity to meet, get to know, and learn from your industry peers, leaders, and suppliers.

For many of you, PestWorld is a cornerstone in your annual schedule—it is where you gain knowledge, enhance your skills, network, and meet face-to-face with our industry’s suppliers. For others, this may be your first convention experience—welcome. For everyone who comes to Phoenix, thank you for taking the time out of your busy schedule to participate and experience the largest gathering in the world of pest management professionals.

This year’s educational program focuses on everything from bed bugs to regulatory issues to sale and marketing techniques…and our exhibit hall will showcase the newest and greatest products and services the industry has to offer.

Whether you will be walking the trade show floor in Phoenix or not, I encourage you to thank these companies and take some time to learn about their innovative products and services. These suppliers support the pest management industry and invest in you by providing you with what you need to run a professional business.

We hope to see you in Phoenix, Arizona on October 22–25 to be inspired, to learn, reunite with old friends, make new ones, and of course grow personally and professionally. Don’t forget to visit the PestWorld 2013 Web site at www.npmapestworld.org/pestworld2013 for the most up-to-date information on the education and networking available this year!

As always, if you have any questions, please do not hesitate to contact me at npma@pestworld.org.

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In 2010 and 2011, the National Pest Management Association (NPMA) and the University of Kentucky surveyed the pest management industry about the growing bed bug resurgence. We polled U.S. firms again this year to learn what was new to report.
One of the remarkable things about bed bugs has been the reach of their resurgence. When pest management firms in 43 countries were surveyed in 2010, respondents confirmed that infestations were increasing worldwide. Bed bugs were once again biting both rich and poor, wherever they slept and spent time (PestWorld, Sept./Oct. 2010). In summer 2011, pest managers in the U.S. were polled again, yielding additional insights—including that more bugs were being transported into schools, offices, and other ‘non-bed’ environments (PestWorld, Sept./Oct. 2011).

In 2012, news coverage of bed bugs waned. Health officials in New York and Cincinnati received fewer calls on their bed bug help lines. Some pest control firms also experienced a downturn in revenue, prompting speculation that the crisis is in decline. Read on to learn what the rest of the industry is saying about the state of the resurgence and whether, as a nation, we are making any progress.

**Survey Parameters**
An online survey was administered consisting of 32 questions, covering topics ranging from frequency of bed bug infestation, to management and business practices. Many of the questions were similar to those in previous surveys in order to permit year-to-year comparisons. Questions were formatted either as open-ended or closed-ended (fixed) responses. Responses to the self-administered online survey were collected from January 19 to February 18, 2013. Letters requesting participation were emailed and delivered to 6972 contacts representing NPMA member companies. This resulted in 251 completed surveys for a 3.6% response rate. Respondents worked for companies ranging in size from fewer than 10 individuals to thousands of employees. The breakdown of respondents by region is shown in Figure 1.

**Still Going Strong**
Nearly every respondent (99.6%) indicated their company treated or was asked to treat for bed bugs in the past year—compared to 99% and 95% in the 2011 and 2010 surveys (Figure 2). When asked about the incidence of bed bugs in their region, 72% of all respondents said infestations were increasing while 25% said they were staying about the same. Only 3% felt that incidence of bed bugs was decreasing (Figure 3). Regionally, more respondents in the West (79%), Midwest (77%) and...
About half (49 percent) of respondents indicated that their company received more bed bug calls at certain times of the year. Although pest managers were divided on whether there is a “peak season” for bed bugs, more than half (56%) who notice seasonal differences receive more calls during summer—the same trend reported in 2011 (Figure 4). Travel, relocation, and other activities tend to increase during the summer months, which could boost the chances of encountering bed bugs. During summer, the ambient temperature of some dwellings also tends to be higher, which could result in a faster development time for some populations.

Just About Everywhere
Bed bugs continue to be most common in residences, with 98% and 96% of respondents, respectively, encountering them in apartments/condominiums and single-family homes. About 90% of those we polled in 2010 and 2011 reported finding the bugs in residences. Other locations where respondents reported finding bed bugs in recent years include:

- Hotels/motels—75% reported encounters this year, versus 80% in 2011, and 67% in 2010
- College dorms—47% this year (54% in 2011; 35% in 2010)
- Shelters—47% (47% in 2011; 31% in 2010)
- Nursing homes—46% (46% in 2011; 25% in 2010)
- Schools and day care centers—41% (36 percent in 2011; 10 percent in 2010)
- Office buildings—36% (38% in 2011; 18% in 2010)
- Hospitals—33% (31% in 2011; 12% in 2010)
- Doctor/outpatient clinics—26% (23% in 2011)
- Transportation (trains/buses/taxis)—21% (18% in 2011; 9% in 2010)
- Movie theaters—10% (17% in 2011; 4% in 2010)

In the current survey, fewer respondents reported finding bed bugs in retail stores (15% compared to 21% in 2011), but more mentioned finding them in libraries (12% compared to 8% in 2011). Bed bug encounters in Laundromats (9%) and restaurants (7%) were relatively unchanged.
Discovering bed bugs in such locations isn’t so surprising, considering their close (and clingy) association with humans. It is likely this trend will continue now that the pests are thoroughly entrenched in people’s homes.

Managing Infestations
Most professionals continue to find bed bugs harder to control than other key pests (Figure 5). In 2013, 76% of respondents felt bed bugs were the most difficult to control pest. Ants were considered “most difficult” by 17% of respondents, cockroaches by 6%, and termites by only 1%. This opinion has not changed from previous surveys, despite many more educational seminars, workshops, articles, research, new products and technology.

The time initially spent treating an “average size bed bug infestation” in a residential setting, ranged from less than one hour to more than five hours. (Estimated median 3.4 hours, compared to 2.9 and 2.7 hours, respectively in 2011 and 2010 surveys.) Most respondents (94%) said their company spends more than one hour on the initial service. Thirty percent said one to two hours were spent, while 64% said more than two hours were typically spent on the initial service. The majority of respondents (69%) said two or three services were typically needed to control infestations (16% said one visit was satisfactory, while 12% said more than three visits were typically needed). A previous industry bed bug survey showed that more treatments are usually needed in cluttered environments—a point worth remembering when pricing work and educating customers on the need for cooperation (Potter 2008). When asked “What are the biggest customer-oriented challenges in treating bed bugs?” 67% said homeowner clutter while 58% said customers not following advice (16% mentioned re-introduction).

When respondents were asked which methods they normally use to control bed bugs, 96% mentioned insecticides (down slightly from 99% in 2011). Encasing beds was also widely mentioned (by 85% of respondents), which was comparable to usage in 2011. Utilization of vacuums (by 70% of respondents) and steamers (by 43%) was also similar to 2011. Volumetric heating of rooms and buildings was used by 42% of this year’s respondents—compared to 32% of those polled in 2011 and 17% in 2010. Other control methods used by respondents included container heat treatment (by 19%), pesticide-impregnated bed liners (by 4%), and spot freezing (3%).

Bed bugs now occur just about everywhere.
Bed bug elimination requires time, effort and attention to detail.

More than two thirds of respondents (68%) felt that customers are very (16%) or somewhat (52%) interested in some form of preventative inspection service for bed bugs—unchanged from feelings expressed in 2011. In respect to willingness of customers to pay for preventative inspections, 54% sensed they were very (7%) or somewhat (47%) willing to pay for prevention, while the rest felt their clients were not interested (31%) or were unsure (15%). Sixty percent of respondents indicated their company currently conducts some type of preventative/proactive service for bed bugs. Services performed by those that do include ongoing visual inspection (by 29%), monitoring/trapping (by 18%), canine inspections (18%), and insecticide applications (17%).

**Bed Bug Insecticides**

Insecticides continue to be the most universal control method for bed bugs. Ninety-six percent of those polled said they apply insecticide liquids, 90% dispense dusts, 52% use aerosols, and 22% employ impregnated resin strips—virtually the same use patterns reported in 2011. When asked which products they routinely use, Temprid was mentioned most (by 41% of respondents), followed by Phantom (32% overall; 28% liquid, 4% aerosol). Phantom was the most mentioned product in the 2011 and 2010 surveys, by 51% and 42% of respondents, respectively. Rounding out the third and fourth most-mentioned products in 2013 were Bedlam (a top-4 mentioned product since 2007), and Transport. Usage of Temprid and Transport for bed bugs has soared in recent years. In 2010, fewer than 5% of those polled routinely used either product. The 10 products most often utilized for bed bugs in 2013 are shown in Figure 7.

When pest managers were asked if they were satisfied with the performance of current bed bug insecticides, 24% said “very satisfied,” 61% were “somewhat satisfied” and 15% were either “not very” or “not at all satisfied.” Industry satisfaction with available products has increased modestly since we asked this question in 2010. As in previous surveys, opinions differed on the extent to which bed bugs are insecticide resistant. About a third of respondents (34%) said they had encountered resistant populations, 42% felt they had not, and 24% were unsure. Laboratory studies consistently suggest resistance to pyrethroids is widespread (Romero et al. 2007, Fang et al. 2010). Yet when bed bug infestations are treated in the field, resistance can be less obvious. In commercial practice pest controllers often employ multiple tactics, which may ‘compensate’ for decreased effectiveness of insecticides. Encasing beds, for example, can often purge many of the bed bugs from a dwelling, especially when augmented by laundering, vacuuming, steam, etc.

Studies have shown that field populations have differing degrees of resistance. Even within those that are highly resistant, some of the bed bugs are more susceptible than others and may succumb to an application, especially at higher levels of exposure. This is one reason products tend to perform better when the bugs (even resistant ones) are sprayed directly. Aside from the active ingredient(s), bed bugs can be further impacted by solvents, propellants, synergists, and other ‘inert’ ingredients of the formulation. This is especially true with some aerosol and

**Monitoring, Detection, Prevention**

Vigilance and early detection have long been considered keys to managing bed bugs. While most companies do visual inspections, other methods are gaining in popularity (Figure 6). Half (50%) of this year’s respondents mentioned using ‘pitfall traps’ (dish-shaped traps generally placed under the legs of beds and sofas), compared to 46% in 2011 and 25% in 2010. More than a third (35%) also said they were using ‘active’ traps emitting heat and/or carbon dioxide. Fewer respondents (27% and 14%, respectively) utilized active traps when the industry was surveyed in 2011. Conversely, industry usage of ‘passive’ (glue boards or sticky traps) declined (59% in 2011 versus 46% in 2013).

While glue-based traps may capture bed bugs, their reliability tends to be lower than for detecting cockroaches, spiders, etc. Part of the reason for this is that bed bugs tend to shun sticky surfaces. Also notable was the continued use of canine scent detection teams, either owned or subcontracted through another company. In 2013, 45% of respondents said their company had used canines to find bed bugs, up slightly from 2011 (43%). Only 17% used bed bug dogs when the industry was surveyed in 2010. The industry will certainly see more bed bug detection devices in the future. Most promising will be those that reliably detect infestations at low levels, and are economical and inconspicuous.

**FIGURE 6. WHICH METHODS ARE YOU USING TO FIND BED BUGS?**

- **Canine Scent Detection**: 45%
- **Active Traps**: 35%
- **Visual Inspection**: 99%
- **Pitfall Traps**: 50%
- **Passive Traps**: 46%
OF THOSE THAT DO TREAT BEDS,
78% treat the mattress, box spring and frame

Previous surveys showed that most pest managers were concerned about accidentally transporting bed bugs home, to the office, or to another account. In 2013, 27% of respondents indicated that someone in their company had already done so—UP FROM 22% IN 2011 AND 15% IN 2010.

Treating Beds
Most respondents (94%) said their company typically treats infested beds with insecticides—up from 81% in 2011. Of those that do treat beds, 78% treat the mattress, box spring and frame. Before the resurgence, professionals would have cringed at the thought of treating a bed with pesticides. Companies today often find themselves “between a rock and a hard place” deciding when and how to disinfest such areas. The same goes for insecticide manufacturers striving to minimize liability while maximizing utility and marketability of their products.

Transporting Them Home
Bed bugs are capable of crawling onto or into just about anything. Previous surveys showed that most pest managers were concerned about accidentally transporting bed bugs home, to the office, or to another account. In 2013, 27% of respondents indicated that someone in their company had already done so—up from 22% in 2011 and 15% in 2010. Some firms are providing clothes dryers for employees.

Detection devices (like this pitfall trap) are being used more frequently.
to run their uniforms, shoes, etc. through at the end of the day. Others have even begun wearing disposable shoe covers to lessen the chance of transporting bugs to other accounts. Technicians have likewise learned to be wary when moving beds and sofas or working in cramped quarters; situating jackets and gear away from heavily-infested areas, and checking their shoes (tops and bottoms) after inspecting badly infested accounts.

**State of the Business**

In terms of growth, 81% of pest managers indicated their bed bug service work grew during the previous year; the rest reported no change (13%) or a decline (6%). More pest managers reported sustained growth from the Midwest (89%), West (83%), and South (79%), than did respondents from the Northeast (68%).

Bed bugs occupy substantial time and resources of the pest management industry—yet still represent a rather modest percentage of overall revenue. Almost half (49%) of this year’s respondents said bed bug work generated five percent or less of their firms’ income (Figure 8). Nonetheless, in the Midwest, Northeast, and West, 43%, 35%, and 33% of respondents, respectively, mentioned that more than 10% of their annual revenue came from bed bug-related services. In the Northeast, West and Midwest, 26%, 24%, and 11% of respondents, respectively, reported revenues exceeding 20%. Bed bug business remained slower in the South, where 17% and 6%, respectively, reported the bugs comprising more than 10% and 20% of their pest control revenue. Pest managers also weighed in on the average amount customers spent last year treating for bed bugs. Two-thirds (67%) of respondents said residential customers in single-family homes spent between $500 and $1500, with a median expenditure of about $1000 (Figure 9). The amount that apartments and condominiums spent treating their buildings for bed bugs ranged from less than $1000 to more than $50,000. About three fourths (78%) of those polled said property managers spent an average of $5000 or less treating their buildings for bed bugs (estimated median expenditure $2918). Similar figures were reported for commercial customers such as hotels and motels (estimated median $2831).

Many firms made changes to their bed bug service last year. Two thirds (66%) of respondents said they have or would soon sell preventive inspections—the same number emphasizing greater emphasis on preventive inspections in 2011. It remains to be seen whether clients can be convinced to pay for pro-active inspections and other preventative services. With respect to heat treatments, 28% of those polled have or intend to use the technology (14% fewer than in 2011); 14% mentioned adding canine scent detection teams (13% fewer than in 2011); and 10% specified fumigation services (2% fewer than 2011). Another 13% of respondents said their companies have started or intend to start treating for bed bugs. Firms that do not treat for bed bugs increasingly risk losing new business and forfeiting existing accounts to others.

In 2011, the National Pest Management Association developed “Best Management Practices” (BMPs) to help the industry control bed bugs safely and effectively. The majority of survey respondents (61%) said their company is following or plans to follow the guidelines. Most remaining firms said they either were not familiar with the new BMPs (15%), or had not yet made a decision (23%).

![Figure 8. What percentage of your company’s pest control revenue currently comes from bed bug service work?](https://www.npmapestworld.org)
Parting Thoughts
As in previous surveys, respondents volunteered other thoughts and suggestions. Several stressed that the pest control industry cannot fix this problem alone, and that customers need to do their part in respect to cooperation and being vigilant. Others emphasized the need for effective and affordable solutions for the poor—pointing out that these accounts have become massive bed bug reservoirs that must be purged if society is to get ahead of this insect. Several respondents echoed the need for pro-active inspection and early detection. One suggested buildings should budget for bed bug prevention and stop putting PCOs “in the crosshairs” when they get sued. It was further suggested that NPMA/state associations develop a generic disclaimer for property managers to initial if they disregard the preventative program that has been recommended. Respondents also were concerned about the devaluation of bed bug services as the market matures and prices decline. Some lamented that firms should not be doing bed bug work if their treatment lacks thoroughness, since it misleads the public. A few also opined on the public’s misuse of bed bug pesticides, saying the situation has become “downright scary” and is putting both customers and employees at risk. Extreme use of foggers and diatomaceous earth were noted in particular.

What is abundantly clear from the current survey is that bed bugs are not subsiding, as some news reports have suggested. Infestations continue to plague Americans wherever they live and gather. Lacking a coordinated, sustained, societal response, efforts to date have been akin to the repetitive, futile arcade game of ‘whac-a-mole.’ In the meantime, business is booming for many companies. Bed bugs are also starting to come on strong in smaller cities and throughout much of the South, which have until recently lagged behind other areas of the country. Pest managers in markets already overrun with bed bugs are seeking ways to grow the sector without taking too much time and resources away from the rest of their business. (A growing refrain of some firms is that bed bugs produce 10% of the revenue, but require 50% of their effort.). The cost of bed bug extermination is busting the budgets of households and businesses—yet convincing clients to invest in pro-active inspections and other preventative measures remains elusive.

Bed bugs continue to be the most challenging pest, by far, in the industry. Pest managers are becoming more experienced and have better tools for treating infestations. Still, there are no ‘silver bullets’ or easy fixes and the threat of resistance continues to be a global predicament. As a nation, we’re making progress, but the lowly bed bug is proving a formidable adversary.

Michael F. Potter and Kenneth F. Haynes are entomology professors at the University of Kentucky, Lexington, Ky. Jim Fredericks and Missy Henriksen are Director of Technical Services and Vice President of Public Affairs, respectively, for the National Pest Management Association, Fairfax, Va. Special thanks to the pest management professionals who participated in the study.

References
**Q**

What’s the best protection for pest management professionals against ticks?

**A**

Pest management professionals spend a lot of time in areas where they might encounter ticks as they perform exterior inspections and perimeter treatments. One of the best pieces of advice is to know where to expect ticks. Ticks live in moist and humid environments, particularly in or near wooded or weedy natural areas.Ticks are typically not found in well kept, sunny lawn areas, but if you venture into wooded areas, and ecotone areas (weedy transitional areas where the woods and grass areas meet) you are in prime tick habitat. Since ticks can transmit a number of different pathogens, including the germ that causes Lyme disease, its important to remain vigilant.

The Centers for Disease Control (CDC) offers these tips, which are helpful for work or play:

- Products containing permethrin kills ticks. Permethrin can be used to treat boots and clothing and can remain protective through several washings. Check the label and follow instructions carefully.
- Use a repellent with DEET on skin. Repellents containing 20% or more DEET (N, N-diethyl-m-toluamide) can protect up to several hours. Remember, repellents are pesticides. Always follow product instructions.
- Check your clothing for ticks and remove them. Placing clothes into a dryer on high heat for at least an hour effectively kills ticks.
- According to the CDC, showering within two hours of coming indoors has been shown to reduce your risk of getting Lyme disease. Showering may help wash off unattached ticks and it is a good opportunity to do a tick check.
- Check your body for ticks after being outdoors. Conduct a full body check upon return from potentially tick-infested areas. Use a hand-held or full-length mirror to view all parts of your body. Check these parts of your body for ticks:
  - Under the arms
  - In and around the ears
  - Inside belly button
  - Back of the knees
  - In and around the hair
  - Between the legs
  - Around the waist

According to the CDC, showering within two hours of coming indoors has been shown to reduce your risk of getting Lyme disease.

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**Q**

I know cockroaches are difficult pests to control, but a customer recently asked me if they could survive a nuclear blast. What’s the best answer?

**A**

Cockroaches aren’t immune to radiation any more than any other animal. In fact, even among insects, they aren’t particularly good at withstanding doses of radiation. But because cockroaches are such a terrible pest and are so ubiquitous, they are often used as an example. Compared to non-arthropods (like mammals, birds or reptiles), insects in general, are more resistant to the effects of radiation. The reason for this, is the stadiol growth pattern if insects. During a molting cycle, the cells of an insect typically only divide once. This is illustrated in Dyar’s Rule, that is, insects double their weight during each molting cycle, so the cells of an insect normally divide only once between each molt. Cells are most susceptible to the effects of radiation when they are dividing. This is the same theory that is used when radiation is employed to kill cancer cells. Since cancer cells divide more rapidly than normal cells, a given dose of radiation kills more cancer cells than healthy cells. If a cockroach molts approximately once per week, most of the roach’s cells typically divide during a single 48-hour period between molts. So, at any one time, only one quarter of the cockroaches in a population will have dividing cells, or three-quarters would have cells that are
not particularly susceptible to radiation. Comparatively, mammalian cells are dividing all the time, so a single dose of radiation would be more harmful to the entire population of humans. It is important to note that if a dose of radiation was endured for a sustained period of time, all living animal cells would die, even arthropods.

Q: How do I update my service areas for the find-a-pro listing at pestworld.org?

A: One of the benefits of NPMA membership is a listing on NPMA’s consumer-oriented Web site, pestworld.org. Consumers looking for pest management providers can enter their zip code and find NPMA member companies that provide service near them. By default, the zip code where your company is headquartered is included. In order to add additional listings, you must input all of the zip codes your company services into the database. If you’d like to add more service areas to the pestworld.org website, just take the following steps:

■ Visit the NPMA members-only website at www.npmapestworld.org.
■ Under the “Membership” tab click on “Update Find A Pro Listing.”
■ Click on the link that says “Update Your Listing Today!”
■ Login with your username and password.
■ Your company contact information should be listed, choose “Edit” to change or update the information.

From here you could either enter all the zip codes you do service in or you can select the states in which you do business and then click on the counties/cities/municipalities that you want to show up when someone searches in your area. Once you make the updates it takes about 24 hours for the changes to be reflected on the consumer site. If you need more help, contact the NPMA Member Services Department at (800) 678-6722.
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**Introduction**

Termites are known to be cryptic but drywood termites take that lifestyle to the extreme. They live completely within dry, sound wood, which functions as a colony site and food source. Drywood termites do not need to maintain a soil contact as they are able to extract all the moisture they need from the wood they consume and metabolic processes. Living within their food source provides drywood termites great protection from the environment and predators and also makes them very difficult to detect. Drywood colonies are smaller than native subterranean termite colonies and consume much less wood per colony.

There are several species of drywood termites in the United States including *Incisitermes snyderi*, *I. minor*, *I. schwarzi*, *Kalotermes approximatus*, *Cryptotermes brevis* and *Marginitermes hubbardi*.

**Description**

Drywood termites vary in appearance by species and caste but as a general rule, pseudergates, or ‘false’ workers, are wingless (apterous), blind, elongate, cream-colored and soft bodied. Soldiers exhibit the most morphological variation with some possessing heavily sclerotized blunt head capsules, like *Cryptotermes brevis*, while most have an elongated head capsule with a pair of large ‘toothed’ mandibles. Drywood termite soldiers can be differentiated from subterranean soldiers by having a pronotum as wide or wider than their head capsule. Alates have compound eyes, two pairs of long, equal-sized wings and a sclerotized body ranging in color from tan to reddish-brown to black. Under magnification drywood wings can be differentiated from subterranean wings by their venation (drywood wings have 3 or 4 darkened wing veins along the fore area compared to 2 for subterraneans).
Figure 1. This piece of drywood termite infested wood was broken to release false workers and fecal pellets. Notice how the wood appears to be in good, sound condition yet a cross-section of a gallery is visible.

**Distribution**

Drywood termites are established in a fairly narrow band in the continental United States, spanning from Virginia south through Florida, extending along the Gulf coast, through the southwest and up the Pacific coast to Northern California. Hawaii also supports drywood termites. Globally, drywood termites are found in many sub-tropical, tropical and coastal locations. Drywood termites are occasionally found in places not listed above when infested furniture is relocated.

**Biology**

Drywood termite colonies are much smaller than native subterranean colonies, ranging from several dozen to a few thousand individuals. There is a division of labor within the colony but there are no true workers. Late instar termites are called pseudergates and perform the work typically accomplished by true workers (gallery construction, feeding colony-mates) until they reach adulthood and then they differentiate into a soldier or reproductive. Soldiers are responsible for protecting nest mates which sometimes includes physically blocking entry points into the colony. There are two major forms of reproductives, primary (winged alates) and replacement (wingless, not heavily sclerotized). Alates leave the colony to found new colonies while replacement reproductives remain in the colony in which they developed. Reproductives are responsible for all of the mating and egg-laying that occurs within a drywood termite colony.

Living inside of wood is a dry and forbidding environment so drywood termites cannot afford to waste water. Before defecation, termites use highly specialized rectal pads to squeeze as much water out of their feces as possible and retain it. What remains are tiny, hard, oval-shaped pellets with 6 indentations on the sides which are a diagnostic feature of a drywood termite infestation. Pellets range in color from cream to red to black and their color is not necessarily representative of the food they have been eating. The lack of water in the pellets helps preserve them for a long time, making it difficult to determine how long it’s been since they were kicked out. Pellets from today are indistinguishable from ones that are many years old.

Instead of living a life surrounded by feces, drywood termites make small “kick-out” holes in areas they are living and force the pellets out of the wood. These holes are round and tiny, less than 1mm in diameter. Pellets found on the ground can be traced to the kick-out hole from which they came. The higher the kick-out
hole is from the floor, the more difficult it usually is to find. Pellets falling from several feet hit the ground with greater force and as a result the pellets are scattered and are not likely to be concentrated in a single pile. Pellets may also be pushed upward from below.

Drywood termites excavate galleries by eating along and across wood grain; spring and summer wood are both consumed. Drywood termites infest structural beams, window frames, wood floors, furniture and any other sound, dry wood they encounter. The size and shape of the galleries vary but are smooth and often very close to the surface of the wood, leaving only a thin and fragile layer between their gallery and the outside world. Galleries can be as narrow as to only accommodate one termite at a time or wide enough to allow several to pass at once and the size of a gallery system is closely related to the size of the colony. The gallery system is unpredictable with some large, open cavities suddenly giving way to a narrow tunnel that may reach another cavity or not.

Colony expansion can be limited by the size and the qualities of the wood in which they are living. It typically takes 5+ years from penetration of wood (through cracks, joints or other irregularities in the wood) by the royal pair until they are able to develop and mature the colony enough to produce alates.

**Pest Status**

Much like subterranean termites, drywood termites cause millions of dollars in damage annually across the United States, despite a limited distribution. Drywood termites infest dry, sound wood and are often found in structural lumber, furniture, utility poles, boats and dead tree limbs.

In the years before a colony can produce alates, detection is difficult and infestations often persist for many years unnoticed. The cryptic nature of drywood termite colonies precludes homeowners employing elimination strategies other than throwing away infested items, so PMPs are integral in drywood termite control.

**Treatment Options**

When it comes to treatment of drywood termites there are two primary options: fumigation or spot treatment. Fumigation has long been a staple of drywood termite control, especially in areas with heavy infestation rates. While the chemicals used in fumigation have changed from methyl bromide to sulfuryl fluoride the results have remained the same. When executed properly, all life stages of drywood termites in
the structure (or piece of furniture) will be killed during fumigation. PMPs must have special licenses and equipment to perform fumigations. Furniture can be treated with a fumigant or by spot treatment depending on the decision of the homeowner and the recommendations by the PCO.

When an infestation is believed to be isolated or localized, a spot treatment may be administered. Termiticides used in spot treatments include non-repellent foams and dusts formulated with a variety of active ingredients. These drill and treat products are designed to fill or coat galleries and although the products have changed, this method has been used for nearly 100 years. Devices used to freeze, heat or electrocute termites are also available for use as localized treatment options.

Selected References


MAKING CONNECTIONS • FINDING ANSWERS • INCREASING PROFITS

PEST WORLD 2013

PHOENIX, ARIZONA October 22–25

PHOENIX CONVENTION CENTER

presented by the National Pest Management Association

visit www.npmaestworld.org/pestworld2013 to register
SPECIAL PROGRAM!
MONDAY, OCTOBER 21

12:30 PM – 4:30 PM
LDG GIVES BACK

As part of its commitment to providing leadership development 365 days a year, NPMA’s Leadership Development Group (LDG), is hosting a volunteer project at the Boys and Girls Club of Phoenix on Monday, October 21 preceding PestWorld 2013. Anyone interested in supporting this effort to educate children on bugs, interact with the children during sports, arts and crafts, and provide some assistance to the facility in the ways of painting, landscaping, cooking and cleaning, can sign up on the registration form. The registration fee is $50 and includes transportation and lunch. Sign up on the registration form.

TUESDAY, OCTOBER 22

7:00 AM – 8:30 AM
PWIPM 5K FUN RUN/WALK FOR BREAST CANCER AWARENESS
Let’s Band Together for a Good Cause

Before the official kick-off to PestWorld 2013, on Tuesday, October 22, the fourth annual PWIPM Fun Run/Walk will take place in Phoenix! The PWIPM 5K run/walk is designed to raise funds and awareness for the breast cancer movement, celebrate breast cancer survivorship, and honor those who lost their battle with the disease. PWIPM has established a fundraising goal of $10,000 that will be contributed to Avon Foundation for Women. Let’s join together, put on our running/walking shoes and make a difference in someone’s life! Sign up or make a donation for this event on the registration form.

PRE-CONVENTION
SPECIALTY SESSION CANINE SCENT DETECTION

8:30 AM – 12:30 PM
The Science Behind Canine Scent Detection
Paul Waggoner, Auburn University, Auburn, Alabama

Regardless of the target substance, familiarity with fundamental aspects of canine olfaction and behavior as it relates to scent discrimination, generalization, and recognition will facilitate effective employment of detector dog teams. These topics shall be discussed in the context of basic sensory and behavioral sciences and Auburn’s canine scent detection research over the last two decades.

Effectively Sub Contracting Canine Scent Detection Teams
Panel Discussion with Pest Management Professionals

Now that bed bugs have made a comeback, many pest management firms are utilizing subcontracted canine scent detection teams as part of their bed bug IPM programs. In this session learn how pest management firms are integrating canine scent detection into their business without investing the time and effort into securing their own canine.

Five Secrets to Make Canine Scent Detection Pay Off!
Steve Dodge, Protech Pest Control, Springfield, Virginia

Regardless of whether or not your firm is already utilizing scent detection canines, or just considering them as an option, this fast-moving presentation will show you the critical areas that demand your greatest attention. Learn how to use public perception, education, continual training, and professional networking to enhance the image of your business and to increase your income.

#PESTWORLD2013
VISIT WWW.NPMAPESTWORLD.ORG/PESTWORLD2013 TO REGISTER
1:30 PM – 2:30 PM
OPENING CEREMONY FEATURING STRING THEORY
Sponsored by Bayer
Transforming a building into a musical instrument is no easy feat, but this year’s Opening Ceremony will prove that it CAN happen. String Theory will reconfigure the Phoenix Convention Center Ballroom into a giant harp and will leave PestWorld attendees awestruck by the fantastically unique and visually stunning music performance. This is a one-of-a-kind performance that will surely set the stage for the grand opening of PestWorld 2013!

2:30 PM – 6:30 PM
EXHIBIT HALL GRAND OPENING & WELCOME RECEPTION
Sponsored by Bayer

WEDNESDAY, OCTOBER 23
8:30 AM – 10:00 AM
OPENING GENERAL SESSION FEATURING JORDAN BELFORT
Sponsored by Dow AgroSciences
In the 1990s, Jordan Belfort built one of the most dynamic and successful sales organizations in Wall Street history. During that time, he soared to the highest financial heights, earning over $50 million a year, a feat that coined him the name “The Wolf of Wall Street.” Along the way, he succumbed to some of the traps of the high-flying Wall Street lifestyle, going through a spectacular—and well-publicized—fall from grace. Taking invaluable lessons from the mistakes he made and the prices he paid, he has re-emerged as a globally recognized potent force behind extraordinary business success.
This November, his life story will be played out in a major motion picture starring Leonardo DiCaprio and directed by Martin Scorsese.

THURSDAY, OCTOBER 24
8:30 AM – 10:00 AM
INDUSTRY AWARDS & GENERAL SESSION WITH STEPHEN DUBNER
Sponsored by FMC
How can I change the behavior of my employees? Why are our incentive programs not working? How can I capture more customers from my competitors? During this engaging presentation, Freakonomics author Stephen Dubner addresses the fact that the old rules of business just don’t apply. It’s a new world, and that demands a new way of thinking. During this presentation, he will address the sort of topics that are on every business person’s mind these days: the ways to create behavior change, the incentives that work and don’t work, and the value of asking unpopular questions. This is a not-to-be-missed session for every business person at PestWorld!

FRIDAY, OCTOBER 25
7:30 PM – 11:00 PM
PESTWORLD FINAL NIGHT BANQUET
Sponsored by BASF
Dine and dance with your new and old friends to one of the area’s hottest and most exciting bands—The Walkens—during this year’s final night banquet! This is an evening you don’t want to miss! All are invited.
Please note, this event is NOT black tie this year.
who attends pestworld?

› Owners and managers of pest management companies
› Pest management technicians and sales representatives
› Product manufacturers and distributors
› Educators and students

who exhibits at pestworld?

› Manufacturers and Distributors of Products and Equipment for Pest Control, Termite Control, Mosquito Control, Bed Bug Control, Nuisance Bird and Wildlife Control, and Lawn Care
› Mold Remediation Suppliers
› General Services and Products for Small Businesses such as Cell Phones, Credit Cards, Insurance, Legal, and Security Video Systems
› Vehicle Equipment and Accessories, including GPS Systems
› Computer Systems Technology, Software, Web Developers and PDAs
› Human Resource Consultants

SHERATON PHOENIX HOTEL
For reservations, call (800) 325-3535 and mention “NPMA” to receive the negotiated rate of $235.00 per night. This rate is in effect until September 26.

RENAISSANCE PHOENIX HOTEL
For reservations, call (602) 333-0000 and mention “NPMA” to receive the negotiated rate of $215.00 per night. This rate is in effect until September 26.

Tuesday, October 22
7:30 AM – Noon
PESTWORLD 2013 GOLF TOURNAMENT
Hosted by the Arizona Pest Professional Organization

As one of Conde Nast Traveler’s “World’s Top 125 Golf Resorts” the dramatic course at the Kierland Golf Club is set apart from any other desert golf experience. Emerald green fairways are etched into golden-colored desert grasses, sweeping over constantly changing elevations to flawless tif-eagle grass greens. More than three hundred bunkers guard the way, along with lakes, dry desert washes and strands of desert trees. Come and join the Arizona Pest Professional Organization and play where the pros tee up! Entry fee is only $145 per person to play in this outstanding tournament.
John Deere Landscapes offers a large selection of pest control products from the best manufacturers in the industry. Get all the supplies you need for residential and commercial pest management including tank sprayers.

- Convenient locations
- Full product assortment for all Pest Management Professionals
- Training and recommendations
- Responsive delivery
- Terms and incentives

NEW!
LESCO 50 Gallon Tank Sprayer

Specifications

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*Consult Owners Manual for full warranty details.
Over the past few years, it seems as though every few months have marked the introduction of another new and innovative online service that changes the way that marketers use social media. From the launch of Instagram in 2010 and Pinterest in 2011, to the introduction of Vine and Instagram Video in 2013—the ever-expanding number of social media platforms available to consumers is creating new and powerful marketing opportunities for major brands and businesses on a global scale. Likewise, as time passes, more established platforms, such as Facebook and Twitter, continue to roll out changes and updates to create a more complete and satisfying user experience.

Given that a recent survey calculated that time spent on social media accounts for one out of every six minutes spent online in the United States1, it’s no surprise that marketers are eager to stay on top of social media trends to be sure they are capitalizing on this huge audience of consumers. Here’s what you need to know about the latest and greatest trends in the ever-evolving world of social media:

**Facebook Introduces Hashtags and Graph Search**

In June 2013, Facebook introduced the use of hashtags. Many social media websites, like Twitter, Pinterest and Instagram, had been using hashtags to group conversations together by topic for quite some time and Facebook’s introduction of hashtags marks the transition toward broader conversations outside one’s own network of followers, friends or fans. Whether it’s talking about a favorite television show, sports team or breaking news, people can now use Facebook to connect with real-time conversations across the social network. Users are now also able to search/use hashtags that originated on other services, like Twitter. Brand pages can incorporate hashtags into their Facebook page updates and join common conversations with the chance of having the page’s content seen by potential fans. For those brands already using hashtags as a part of their other social media platforms, this seems like a simple and easy way to implement those strategies on Facebook, ideally reaching even larger audiences beyond their existing fan bases.

Not long after this addition, Facebook unveiled a newGraph Search functionality that allows users to search their Facebook social network for people, places, photos and interests. The new search engine is reportedly faster and easier to use than their former search box, and is integrated with Microsoft’s Bing, meaning it will offer web results for searches that fail to yield useful results from a user’s social graph.

**Vine**

Arguably the biggest overnight social media success of 2013, Vine launched after being acquired by Twitter in January of this year. A new mobile service that allows users to create and share short, looping videos with their personal networks, Vine quickly became the most popular online video-sharing app in its market. In June, they announced that it had hit 13 million users who on average post approximately 12 million videos on Twitter every day. The appeal of Vine is most likely its simplicity—a user-friendly interface allows smart phone users to shoot and edit six-second films by tapping the screen and uploading the end product to the app and the Web. Following in the trend of other popular, visually stimulating sites, such as Pinterest and Instagram, Vine inspires creativity and expression by making it easy and quick for a user to create and share a piece of social “art.”
Not long after Vine launched, a variety of brands started experimenting with the service to test its potential as a marketing tool. Some of the first were the major fashion houses during NY Fashion Week in February. Top designers used it to capture and share behind the scenes and exclusive runway footage from their shows with mass audiences. Still others, such as Urban Outfitters, jumped onboard within only 24 hours after Vine launching to test out the service and begin attracting followers. Urban Outfitters is now one of the most active major brands on Vine, with more than 41,400 Vine followers and nearly 125 posts as of June 2013. Other popular brands that have experienced some success with Vine include Lowe’s and General Electric, in addition to major media, including USA Today. This broad range of brands from different categories have all figured out the key to successful Vine marketing lies in determining exactly what aspect of their business should be highlighted, and then getting creative within a six-second window.

While there is little research at this point to measure just how effective an online video social network like Vine can be, it’s likely that an active, strategic presence on the network can help build brand recognition. As with most social media, the best way to make Vine work for a business is to be sure the video content is in line with the overall brand message. For instance, home improvement giant Lowe’s has achieved a large number of Vine followers by creating a series of instructional videos that highlight quick, simple DIY projects for homeowners.

**Instagram Video**

When Facebook acquired the hugely popular mobile photo-sharing app Instagram for $1 Billion in April 2012, there was little doubt that the social media giant would find ways to expand on the app to leverage the 30 million committed users who were sharing photos and applying filters on a daily basis. A few months after Vine launched to great success, Facebook took notice and decided to get in on the video sharing game, with the introduction of Instagram Video on June 20, 2013. Within the first 24 hours of Instagram Video availability, users uploaded more than 5 million videos and shares on Vine dropped almost 40 percent.

Because so many brands were already using Instagram as a marketing tool, the majority were quick to begin experimenting with the video function to determine how it differed from Vine. Again, fashion houses seemed to be among the first category of brands to release Instagram Videos, with global fashion powerhouse Burberry quickly releasing backstage footage from its summer show, and fitness gear giant Lululemon creating a yoga video called “Every Mat Has a Story to Tell.” Other brands that instantly began testing out Instagram Video included mainstays such as Ford, Dell, Nike and Starbucks. Many seem drawn to this particular video-sharing app due in large part to the built-in audience they’ve already curated through photo-sharing on Instagram. Also appealing are the longer timeframe of 15 seconds per video, and the range of new filters with which users can treat videos just as they do with photographs. Perhaps the biggest reason businesses may want to incorporate Instagram Video into their marketing strategies is because the content publishes to Facebook in the same way a photo does, allowing users to access the more than 1 billion active users on Facebook, as well.

Since there is still no surefire method of measurement for a marketing campaign on Instagram, it may be difficult for business owners to determine if it’s right for them. Likewise, Instagram is 100 percent mobile driven and all content begins with the mobile device, which may create some limitations. If your business is already using Instagram as a marketing tool, try out a video or two and see how it goes. If engagement levels are on par with those you typically expect from a photo post, perhaps it makes sense to launch a full Instagram Video strategy.

Social media may be constantly changing and evolving, but one fact remains the same—as the number of opportunities for brands on social media continues to grow, so too will the tremendous number of consumers who interact online. Brands should strive to stay on top of the latest updates and trends to take advantage of these effective methods of engaging with consumers.

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**Endnotes**

1 Mashable.com
BED BUGS: CLOSING IN ON BETTER CONTROL
Over the past thirty years or so the pest control industry—including pest management professionals, pesticide manufacturers and housing professionals—has become very adept at managing residential pests.

When a tenant calls with a problem, the pest controller usually responds quickly and professionally. Over these thirty years there have been major changes in the practices for preventing and controlling cockroaches, rats and mice, and termites. Some changes, such as switching to baits for cockroaches, may have been controversial; however, the public is now better equipped than ever to deal with these pests effectively and overall control has markedly improved.

Although bed bugs are an ancient pest, they have been quite rare in the United States. As recently as 2001, when we had an infestation in our home, none of the pest controllers in our town could identify the pest. It was such an oddity that a local university entomologist came to our house to take pictures. Now the local pest management company takes out billboards to advertise for bed bug control.

Because bed bugs have been sparse, bed bug control efforts have not matured and evolved as have the control efforts for other pests, such as cockroaches and termites. Until recently, best management practices were unheard of for bed bugs, as was community awareness of the problem. Although society was caught off-guard by the resurgence and was slow to respond effectively when bed bugs became more prevalent in the beginning of this century, community awareness and control practices are continuing to improve.
The EPA’s Early Efforts
When the EPA held the first National Bed Bug Summit in 2009, we were asking the public for recommendations on how the federal government could help combat this pest. Many ideas came out of this summit, but not all were directed at the federal government. The EPA and the federal partners have implemented recommendations from this summit for the federal government; however, the summit made clear that solving this problem would take leadership and action from every sector of government, housing and industry.

At the EPA we are in charge of registering pesticides. Companies come to us to get clearance before selling a pesticide. By law, we make sure that it can be used without causing any unreasonable adverse effects. Under the federal pesticide law, we also balance the risk and benefits of a pesticide’s use. For a pesticide used to control pests that have a public health implication, such as bed bugs, we also require the company to submit data proving that the pesticide actually works and will kill the bugs.

In response to the first summit and the follow-up summit sponsored by six federal agencies in 2011, the EPA has assumed a facilitative leadership role in pesticide and educational issues involving bed bugs. Immediately after the first summit, we started a program to accelerate the registration cycle for new pesticides to control bed bugs and for existing pesticides seeking to add bed bugs to their label. The EPA spoke with many chemical registrants to encourage them to explore alternatives and expand the options for bed bug control. Our combined efforts have been very successful and there are now more pesticide tools for bed bug control than ever before.

Evaluating the Efficacy of Bed Bug Products
Although over 300 pesticide products were registered for bed bug control before the first summit, many pest management professionals raised concerns about pest resistance. In response to concerns about resistance, we developed new guidelines for data to evaluate the efficacy of bed bug control products. We expect to finalize these guidelines by the end of the year. They will provide a clear basis for the EPA to evaluate the efficacy of bed bug products. In addition, broader availability of pesticide tools will also make it easier for control professionals to rotate chemicals and reduce the likelihood of the bed bugs developing resistance to any single pesticide product.

Over the past decade we have also learned about other factors beyond just resistance that can cause treatment failure. It is unlikely that one pesticide application will eliminate even a minor bed bug infestation.

EPA’s Bed Bug Website and Clearinghouse
In 2001, bed bug information on the Internet was extremely limited. Today, information can be easily found, but there is a different problem. Often people have trouble finding quality information on bed bugs because so much of what is available is inaccurate or misleading. Some websites appear designed to make money, rather than control bugs. This concern was raised by participants at both bed bug summits.

The EPA, jointly with the other federal agencies, hosts a bed bug Web page that is intended to provide objective, reliable information to the general public. This website (http://www.epa.gov/bedbugs) is one of the most visited of all of the web pages at epa.gov and receives over 30,000 hits each month. We also host an information clearinghouse of bed bug educational materials. The clearinghouse was designed to allow communities to easily access reliable educational materials, rather than developing new materials from scratch. By relying on the EPA’s clearinghouse, communities can conserve their resources while having more confidence in the information they are giving out.

Need for Prevention and Increased Awareness
It is becoming increasingly clear that the battle against bed bugs must begin at the community level. Prevention and increased awareness reduce the rate of new infestations and can help residents identify an infestation in the early stages when it is easier and less expensive to eliminate it.

Integrated Pest Management will reduce the harborage, minimize the food source (access to humans) and monitor to determine when all of the bugs have been eliminated. However, this approach relies on strong support from residents (and neighbors in multi-family units). Gaining this support is much easier when effective, reliable education materials are available.
Conclusion
As the first responders when a new infestation is identified, pest management professionals have a critical role to play in both control and in decreasing transmissions. We will continue to support this role from regulatory and educational perspectives, recognizing that both are crucial to successfully beating back these bugs.

Susan Jennings is the Public Health Coordinator for the EPA’s Office of Pesticide Programs. As the Public Health Coordinator, Susan is the primary contact for public health issues involving pesticides. Susan is very active in regulatory, scientific and communication issues involving mosquitoes, ticks and cockroaches, and she leads the EPA’s bed bug control and education efforts.

AS THE FIRST RESPONDERS when a new infestation is identified, pest management professionals have a critical role to play in both control and in decreasing transmissions.
Privacy and cyber security risks are no longer just limited to computers. Smartphones and tablets have become just as essential to pest control businesses in recent years as computers. While these mobile devices are valuable and convenient for businesses in almost all industries; pest control operators are always on the move, and increasingly doing more business on their mobile devices. Are increased efficiency, mobility and accessibility worth the increased risk of a data breach?

According to the Impact of Mobile Devices on Information Security, a survey of 768 information technology professionals conducted by Dimensional Research, 89 percent of respondents said their mobile devices are connected to corporate networks. Meanwhile, 65 percent allow employees’ personal mobile devices to connect to corporate networks.

Increased opportunity often comes with increased risk, with 71 percent of respondents saying that mobile devices have led to a rise in security incidents. In addition to risks posed to businesses, mobile devices also make customers vulnerable, with 47 percent of respondents saying that customer data is stored on mobile devices.

A separate survey from the Ponemon Institute makes it clear that the risks posed by mobile devices are not going away, with 77 percent of respondents saying that mobile devices are essential for achieving business goals.

While most businesses focus on desktop security and try to prevent data loss over web and email channels, mobile devices require just as much attention. Tablets and iOS devices are replacing corporate laptops as employees bring their own devices to work and access corporate information. These devices increase the potential for a data breach of sensitive data.

According to Advisen, lost or stolen devices, mobile malware and web-based threats are the biggest concerns that organizations face when it comes to handheld and mobile devices.

Lost or Stolen Mobile Devices

Physically securing mobile devices, as well as the data stored on them, has and will continue to be difficult. A 2011 study by Kensington on lost or stolen mobile devices revealed the following statistics:

- One laptop is stolen every 53 seconds
- 70 million smartphones are lost each year and only 7 percent are recovered
- 4.3 percent of smartphones issued to employees are lost each year
- 52% of devices are stolen from the workplace

Mobile Malware

According to a Juniper Networks 2011 study, there is more malware targeting mobile devices than ever before. A device can be infected as a user unknowingly downloads a malicious application that has been posted to an app store.

Web-Based Threats

Web-based threats include phishing scams executed via websites, email, text messages and social media as well as downloads that occur by visiting malicious web sites or through a vulnerable flash player, PDF reader, or image viewer.

Minimizing risks from mobile devices

Data from the Ponemon Institute’s study on mobility risks showed that only one-third of companies in the U.S. have mobile device usage policies. This lack of oversight is a major problem, but it can be addressed quickly. Businesses that have not done so already should create specific policies regarding mobile devices for both business and personal use. These policies should:
Identify risks
Describe how mobile devices connect to the network
Detail the kind of company data that can be stored on a mobile device
List tips and steps on how to protect mobile devices
Provide instructions on how to report a lost or missing mobile device so it can be remotely disabled

While issues such as hackers and malware are usually associated with computers, they also pose a problem for mobile devices. This means that employees who use mobile devices to access the internet should follow the same protocols as when they’re using a computer. Additionally, regardless of whether a mobile device is used for business or personal use, if it connects to a company network, its security should be a priority. This means avoiding untrustworthy applications that could contain malicious software.

Businesses need to dictate how employees can access sensitive information. Essential parties should only be able to access important data, which will limit the risk of security breaches and make it easier to track who is privy to sensitive information.

Businesses must also ensure that their networks are secure by:
- Implementing data encryption
- Strengthening passwords
- Protecting access from unauthorized individuals

**Obtaining proper insurance coverage**
Due to the increased use of mobile devices by employees, it is critical that businesses understand whether their insurance provides coverage for a data breach caused by a lost mobile device or by access derived from syncing a company’s mobile device to an employee’s personal computer.

If your company has a cyber insurance policy, it should be reviewed to determine whether the company has specific coverage for a data breach caused by employees’ use of their mobile devices. These policies vary by insurance company and specific endorsements may need to be added.

Most cyber insurance policies cover the costs of:
- Investigation of the data breach
- Determination of the type of notification that must be provided to customers

Speak with a broker to determine what kind of insurance solutions, such as cyber liability coverage, can protect your business from financial losses resulting from privacy breaches and security threats.

- Crisis management and public relations firms
- Credit monitoring costs as well as remediation to correct the breach event

Speak with a broker to determine what kind of insurance solutions, such as cyber liability coverage, can protect your business from financial losses resulting from privacy breaches and security threats. Your broker can also help you identify vulnerabilities and recommend steps to protect your company and your customer information.

Proactively identifying potential mobile device exposures and implementing the necessary security controls and enforceable policies will allow your business to mitigate its risk.

*For an expert consultation, please contact Weisburger Insurance Brokerage at 800-431-2794, info@weisburger.com, or visit our site at www.weisburger.com. Weisburger, a division of Program Brokerage Corporation, is the nationally endorsed insurance broker of the National Pest Management Association (NPMA). With over 75 years of experience, our experts are able to review your current coverage and identify ways to best protect your pest control business during the tips and peaks of the industry.*
THE ENEMY - BED BUGS

KILL ZONE
120°F for 1 hour

OBJECTIVE
Arm Yourself With Heat - A Highly Effective Tool in the Battle Against Bed Bugs.

ARSENAL

DIFFICULTY
Low
High

CHECK US OUT IN BOOTH #213 AT PESTWORLD!
Join us for the first-ever Global Bed Bug Summit, a joint effort of BedBug Central and the National Pest Management Association (NPMA). The Global Bed Bug Summit is designed to provide you with the information you need from a legal, technical, business, and customer-oriented perspective so that you can not only eliminate the bed bug problem, but also create an environment of trust between you and your customer.

FEATURING:

>>> Expo Central - All the latest products and services in one place on our trade show floor.

>>> Night with the Experts - Quality advice and real, take-home knowledge from some of the leading experts in the industry.

>>> Educational Sessions - Dozens of educational sessions on topics from best practices to research to legal questions.

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