

NEHA Got Bugs? Get Sued!

Hello, and welcome to the presentation Got Bugs? Get Sued! To ask questions about this presentation, join the presenter for a Chat hour in the Networking Lounge.

I would now like to introduce our presenter, Dr. Stuart Mitchell, from PestWest USA.

Thank you, and welcome to Got Bugs? Get Sued!

Here we have the head cap or cephalon of an adult bed bug. Notice here at the top, the head portion colored in sort of an orange. On either side of the head you have the compound eyes. This is a rather rudimentary compound eyes made up of independent six-sided lenses called ommatidia. These eyes are rudimentary as these insects are scotopic by nature. They forage mainly by heat and other sensory inputs as they move toward the host for feeding.

You see the antennae sort of off to the left and right there on either side of the mouth parts, or the rostrum, which is the business end of the bed bug. If we were able to take a sort of cross section of the rostrum, this is what it would sort of look like. From a proboscis standpoint you have the outer area. Then you move in toward the inside you have the mandibular stylets and the maxillary stylets. These stylets are sort of – in order sort of act as a hypodermic. They give structure to the rostrum, allow it to pierce the epidermis and move into the capillary beds. Take a feeding. They have a salivary canal which secretes saliva which contains an anesthetant and well as an anticoagulant and a vasodilator, which can be an antigen, cause allergic reactions. That's a vasodilator to help get a better and more efficient blood feeding. Then you have the actual food canal which goes into the alimentary canal of the insect to allow digestion of blood.

This is a three-dimensional model of bed bug feeding. Lower right you can see a dime with an adult bed bug which has feed sitting apart on it.

In this image you see a static sequence of feeding. The previous video indicated about a ten minute, ten to 12-minute feeding cycle. This you can see the bug on the far left starting. His dorsal ventric flattened. They may or may not take some test bites before they are successful to reach a capillary bed to take the feeding.

They use sistole or systolic pressure along with some of the other things we mentioned, the vasodilator, nitrofurantoin, anesthetant, anticoagulant. They become very efficient feeders and the blood is uptaken by capillary action in the gut. You can see how it expands here through the timeframes up to about 12 minutes. Sort of a football shape on the far right.

They feed repletion until they excrete blood and water mix out of their rectal area and out of their mouth parts.

Here you can see a comparison between bed bugs, mosquitoes, tsetse flies, horseflies, Lone Star tick. Bed bug takes only about a 5/1000 milliliter of blood. You can sort of note that by comparison to the eyedroplet animation there, the cartoon. That may not seem like a lot of blood, but bear in mind they five (inaudible) leading to adult stage. Both males and females as adults feed on blood. They're blood obligates, (inaudible) insects, and as a result of that, they take a considerable amount of blood as a number of them may feed in a one-night or photo period, photo period being the number of hours of dark versus the number of hours of light in a ratio. But the bed bugs can feed en masse and they can feed ad libitum or at their pleasure. Studies at the University of Florida indicate that if the bed bug is not successful taking that repletion feeding, they may return and finish the job.

Blood is a mixture of about 55% plasma and 45% blood cells. About seven to eight percent of your total body weight is blood. An average-sized man has about 12 pints of blood in his body, and an average-sized woman has about nine pints.

NEHA Got Bugs? Get Sued!

This is Mr. Procrastinate. Sort of representative of the fact that we know a lot about bed bugs, we understand a lot of the anatomy and physiology of the bed bug and their behavior, but we fail to domesticate that knowledge to our benefit in many cases. For various reasons we know and do not act.

Hi. I'm Dr. George Parada, Medical Advisor for the National Pest Management Association. Today I'm going to talk about the correlation between bed bugs and disease.

Ever since bed bugs made a resurgence in the late 1990s, people have been concerned about the potential for this pest to transmit disease to humans. Although some blood-feeding insects, like ticks and mosquitoes, are known to transmit diseases, including West Nile Virus and Lyme disease, bed bugs are not known to transmit diseases to humans. However, some pathogens have been detected in and on bed bugs. These include Hepatitis B and exotic organisms such as trypanosome cruzi or the cause of Chagas disease, and the bacteria wolbachia. But again, there is no indication that bed bugs can transmit these diseases to humans.

Bed bugs also do not transmit MRSA or methicillin-resistant Staphylococcus aureus. There have been reports of people developing MRSA infections, such as boils or abscesses, associated with bed bug bites, but these infections were secondary. MRSA affections associated with bed bug bites are actually an example of scratching leading to minor trauma and subsequent secondary bacterial infection. In these cases, people who are carriers of MRSA scratch at the bites and provide a port of entry for MRSA, which was already present on their skin. This allows it to get under the skin and cause secondary infection. Bed bugs can be blamed for the itch, but not for the infection.

Although MRSA associated with bed bug infestations is very rare, you should still be familiar with the signs of an infection. The symptoms of MRSA depend on where you're infected. Most often it causes mild infections on the skin, like sores or boils. But it can also cause more serious skin infections, or infect surgical wounds, the bloodstream, the lungs, or the urinary tract.

Avoid scratching bed bug bites and other cuts on your skin to reduce the chance of MRSA infections. Clean bed bug bites with soap and warm water. If you suspect an infection, see your healthcare provider promptly. Your doctor will examine the affected area, and, if necessary, take a culture and run a lab test to see if you have MRSA. Depending on your symptoms, your doctor may also test your blood, urine or saliva. If you do have MRSA, treatment will depend on the type and location of the infection. If you are prescribed an antibiotic, be sure to take all of the doses, even if your infection is getting better, unless your doctor tells you otherwise.

MRSA can be spread from person to person, so if other people you know or live with get the same infection, they should consult their healthcare provider.

Thank you for watching this episode of Health Checks. That's all the time we have for today. For more information on bed bugs, visit PestWorld.org.

Joint statement on bed bug control in the United States from the Centers for Disease Control and Prevention states regarding whether or not bed bugs are a vector or a nuisance pest, although bed bugs are not known to transmit disease, they are pests of significant public health importance. Bed bugs cause a variety of negative health effects, mental health, and economic consequences. Although the exact dollar is not known, economic loss from healthcare, lost wages, lost revenue, and loss of productivity can be substantial. And that can keyword being substantial.

Dr. Jerome Goddard, the University of Mississippi and an M.D., did a literature search not long ago, and the literature search suggested no evidence that bed bugs would be able to successfully vector any sort of pathogen. However, lacking any epidemiological studies, it's really still out there to determine whether or not bed bugs spread disease. Certainly mental illness is a disease, and we'll look at that aspect of what bed bugs do.

NEHA Got Bugs? Get Sued!

Regarding health, it can be itchy bites, (inaudible), skin infections, secondary infections were noted. Sleep loss. Insomnia can be a major problem. Stigmatization socially. Isolation socially. People are ashamed that they have bed bugs. They won't invite people or allow people into their residence.

The psychological or psychopathies that result, anxiety, distress, and phantom itching, can elicit other behaviors or exacerbate medical issues that people may have.

Economic wise, due to health consequences, work productivity is low, and of course time in management of the insect, and that's a key factor. Costs of medical care, costs of pest management, costs of property replacement.

Residents stressed by infestations will do dangerous things. They'll apply pesticides incorrectly. We'll look at that a little bit later. Some of these – or a lot of these pesticides and insecticides can be illegal illicit products. And then health and environmental consequences that result from that. Primary and secondary toxicosis and involuntary exposures.

Community economics are also of major importance. Bed bugs may spread through the community from people that move through the community going about their various concerns on a daily basis. This can include schools, libraries, buildings, office buildings and such. Bed bugs may cause people with housing choice to look elsewhere for a home. This could obviously degrade the local economy through real estate value decline. Try selling your home if it's infested with bed bugs.

What are the health effects? Well, psychological trauma, allergic reactions, secondary infections. The pathology is called cimicosis, this is being repetitively bitten by bed bugs over time. It may lead to skin eruptions, secondary infections as indicated. Diagnosis is obviously finding the bugs or infestations and the compatible symptoms that patients experience. Treatment is dependent upon eliminating the bed bugs, eliminating bed bug infestations, and as much as possible the possibility of re-infestation through after care. And, of course, medical treatment of specific symptoms.

Bed bug reactions are more remarkable after multiple bites due to possible sensitization to the salivary proteins of the bed bug. Bite reactions are triggered by binding and (inaudible) nitrofurans to IgE antibodies on mast cells with resultant late phase response.

Skin reactions usually occurs in the bite area, which is most often arm, shoulders, legs, as they are more frequently exposed.

You have four basic categories of allergic reactions. Typically bed bugs are Type One for the most part, but can involve a number of reactions with the immune system.

Everyone has an immune system response. It may be sub-clinical meaning it may not present visually when you're examining a patient. The patient may be experiencing emboli or these fluid-filled sacs as a result of the bed bug bites. Some people may not have as acute an response, it might be delayed response. But the immune system is reacting. It may require serology to make that determination. Look for antigens and so on. But it may be sub-clinical, but everybody does have an immune response as a result of bed bug bites.

I think I saw a bed bug! I think I am having post traumatic stress!

Chronic attacks from established infestations of bed bugs can cause anxiety, stress, distress, and insomnia. Development of refractory delusional parasitosis is possible as a person develops an obsession pursuant to bed bugs. This is known as Ekbom's syndrome. Mental illness is a disease.

Ekbom's syndrome, or monosymptomatic hypochondrial psychosis. Known as delusions of parasitosis, this manifests in the patient a firm belief that he or she has parasitosis due to an infestation with insects. Hmm. Patients may present with clothing, lint, pieces of skin or other debris contained in plastic wrap, on

NEHA Got Bugs? Get Sued!

adhesive tape, on matchboxes. Hmm. Patients typically state that these contain the parasites but these collections have no insects or parasites. This presentation is called the Matchbox Sign or the Saran Wrap Sign.

The World Health Organization defines health as a state of complete physical, mental and social wellbeing and not merely the absence of disease and infirmity. This is obviously the tenet's (inaudible) which bed bugs violate.

Here you got the body of the bed bug. Key being here the retroverted labium in the lower right. There is literally a small invagination on the bottom side, the ventral side of the insect, that allows protection of these segmented mouth parts formed in the rostrum which we looked at earlier.

Look at the bug's locomotion, you can see on the lower left there, cockroach. Quite often immature cockroaches can be mistaken for bed bugs. It's important that bed bugs are identified properly to make sure they're bed bugs. Identified down to species as *Cimex lectularius*.

The cockroach foot has this (inaudible) called arolium on it which sort of allows ascension and descension or at least having the ability to move, locomotion if you will, over a surface approaching less surface tension. Therefore they have the combination of (inaudible) and hooks. Where the bed bugs have this tarsal hooks that allow them locomotion if you will over porous surfaces like wood and cloth and so on that you might find in and around the host. This being sort of an evolutionary development following people coming out of caves some tens of thousands of years ago when these bed bugs were a distant cousin of the bat bug, and sort of evolved from bat bugs feeding on humans, blood obligates.

This slide you see the eggs and the first (inaudible) nymph. These eggs, oval shaped, about one by two millimeters. They have a little operculum or a little door that opens up under the right conditions, environmental conditions, and this first (inaudible) nymph comes out and has to immediately seek a blood feeding. Then they go through five (inaudible) to the adult stage. And here you can see first the eggs, then the first (inaudible) nymph, then the second stage nymph which has shed its exoskeleton.

We have an overview of the bed bug lifecycle. Egg, first, second, third, fourth, fifth instars resulting in adults. Life cycle about 50 days. Eat about every three to seven days of that. Can be less defined as they feed ad libitum, in other words at their pleasure. (Inaudible) life stages that last about four to 24 days under ambient conditions. Adults live about three to 12 months. Females will place about three to five eggs per day or up to 500 in their lifetime, possibly more. And, again, a feeding time takes about ten to 12 minutes. They feed while the victim, if you will, patient is in REM sleep. It's very often not felt. The result may be felt the following morning or sometime after. And there may be a disconnect between the results, whatever they happen to be, of the inhabitant having been fed upon by bed bugs and the presence of bed bugs. This may be a disconnect and may take some time to be recognized by the inhabitant as they may not actually see bed bugs for some time during the feeding process.

Hey, where's your dignity?

Hey, cut it out.

Bed bugs certainly spread out, but it's not funny. They're imported in unsuspected items. This is phoresy. This is when one smaller organism moves and radiates or expands its population or its area of coverage, if you will, over space and time. One small organism on a larger organism, not necessarily feeding on that organism, during transport, but uses this strategy, and bed bugs do this quite well.

Visiting bed bug infested locations, obviously, motels and hotels, multiple family housing, moving unit to unit, not necessarily across architectural features but perhaps right underneath a door frame. There's been some research that suggests that bed bugs may spread more readily on garden level or grade level apartment units.

NEHA Got Bugs? Get Sued!

People who experience bed bug infestations obviously will export these into the community.

Bed bugs can affect potentially everyone although there are some high-risk factors. Younger age. When you have more than three adults living in the same area or same residence. Household poverty. Impoverished neighborhoods and multiple unit housing, particularly Section 8 low income housing.

They do affect the poor disproportionately. This is a rather sad status of bed bugs, and regrettably this is where most of the litigation is coming from.

Lack of choices or options. They can't afford a PMP. They think more about do-it-yourself, if anything is done, and then this leads to the application of products. Limited access to information on the internet. Interpretation of product labels. Interpretation of information on the internet. Credibility of information on the internet can obviously be inhibited if a person has a language barrier or might be functionally illiterate.

New York City Department of Health Mental Hygiene did a survey. This is based on 2009 data. Found the presence of these influential public health pests, rats, roaches and bed bugs, was disproportionate high poverty. Here you can see the presence of these pests on the far left on the bar graph. Best practices are limited. And dangerous use of inappropriate, illegal, illicit pesticides is quite prevalent. This is where most of the class action lawsuits originate from.

Bed bugs are here to stay.

Ladies and gentlemen, the story you are about to see is true. The names have been changed to protect the innocent.

Bed bug infestations where no action is taken when knowledge is well in hand regarding the bed bug infestation is a crime scene.

Actually this is just a place for my stuff. You know. That's all. A little place for my stuff. That's all I want. That's all you need in life is a little place for your stuff, you know. I can see it on your table. Everybody's got a little place for their stuff. This is my stuff, that's your stuff, that'll be his stuff over there. That's all you need in life, a little place for your stuff. That's all your house is. A place to keep your stuff. If you didn't have so much stuff, you wouldn't need a house. You could just walk around all the time. A house is just a pile of stuff with a cover on it. You can see that when you're taking off in an airplane. You look down and you see everybody's got a little pile of stuff. All the little piles of stuff. And when you leave your house, you've got to lock it up. Wouldn't want somebody to come by and take some of your stuff. They always take the good stuff. They never bother with that crap you're saving. All they want is the shiny stuff. That's what your house is, a place to keep your stuff while you go out and get more stuff.

As you've seen, bed bugs can get into literally all of our stuff. And with the movement of our stuff, the bed bugs move within our stuff and can end up just about anywhere, and it makes it an exceptionally difficult problem to deal with. Especially when we have issues like OCD, which can be exacerbated by hoarding syndrome. Having to deal with these types of incredible amounts of storage and debris and clutter can be very, very challenging to elimination, let alone management, of a bed bug problem. However, these types of scenarios can be dealt with through proper communication and proper domestication of the problem, understanding it.

Hi, I'm Nicole. I'm the My Move intern, and today I'm going to teach you how to properly tape up a moving box. First you want to pick the right kind of tape. Look for packaging tape that comes in one of these rolling dispensers. Avoid Scotch tape or masking tape because those are not going to get the job done.

So first things first, you want to tape up the bottom of your moving box. Flip out these flaps like this on a flat surface so that you can fold these over and get the bottom taped up. And you're going to use the same technique for the bottom of the box as the top.

NEHA Got Bugs? Get Sued!

So once you've taped up the box, then you want to pack up your box. Make sure that it's full to the brim. You don't want the flaps to be able to cave in because it's not going to be supported if you need to stack other boxes on it, and you don't want it to overflow either.

So, first things first, you're going to flip in the smaller flap. And then the larger one. And you're going to tape in an H pattern. So go along this long seam first.

And then you want to tape up the shorter one making an H along all three seams.

And now for heavier loads you can also add some reinforcement by going in a diagonal pattern along here from edge to edge. But this basic H will make sure that your box remains tightly taped up and all your possessions are safe from one home to the next. And then at the end you want to remember to take this little end piece of tape and fold over a small tab so that the next time you have to use it, you've got a little flap like that.

And that is how you properly tape up a moving box.

Now, something as simple as Box Taping 101 in a class, or at least involved in the content of a class, given to, say, tenants by property managers under the supervision of a pest management professional, pest control operator, is a perfect way to segregate people's material and maintain respect for people's material and belongings. And being able to at least get a organizational pursuit of these types of clutters and large amounts of storage. You can even, in some cases, exclude bed bugs or allow better inspection through materials to determine hot points or (inaudible) points bed bugs.

Clear storage tubs, sealable tubs can be another excellent way of segregating material or large amounts of clutter that have to be dealt with. This particular problem has to be understood. Quite often in pest management, integrated pest management template, we have to begin to understand what we can't do before we can formulate what we can on an integrated pest management. And this way is a way of domesticating a problem that exists but still maintain respect for the building inhabitants.

Contracts are very important to a successful pest management program. A contract is obviously a written between two parties where both parties understand what is expected of each. There's always written documentation to accompany that. What's promised, what's expected, and obviously specifying only bed bugs as the target pest.

Contracts obviously need to have a target pest not mixed with others. It should be exclusive to bed bugs. Graph always at a property. There should be an arbitration clause, we'll go into mediation if there are a separation of influences between parties or a disagreement between parties.

What about chemical sensitivity? That should be dealt with. And perhaps harvesting or coordinating the harvesting of all self-applications of pesticides, eliminating that, centralizing all applications' coordination through the pest control operator.

And if you've got cut rate insurance, you could be picking up these charges yourself.

When was the last time you looked at your policy? If you're involved in beg bug elimination and management programs. And aftercare. Claim exposures can result in injuries and illness. Property damage. Loss of revenues. Payment of fines. Social media claims.

These are certainly not worth it. There could be coverage issues, may not be covered for a certain procedure in your program, or even as an allied practitioner. If you're giving any sort of advice or consultation on bed bug problems, elimination of bed bugs, then you may have some culpable liability if a legal action results. Make sure you check your liability policy. It should have errors and omissions. Cut rate policies won't do you any good.

NEHA Got Bugs? Get Sued!

Obviously,

Pay attention to me when I'm talking to you.

Obviously a bed bug elimination guaranty should be avoided, and especially a bed bug no bite guaranty must be avoided. I have actually seen these in practice, and this is a very, very regrettable practice.

So what about the tenant? They need to cooperate with the landlord. They need to be reporting bed bugs immediately. Do not throw out the belongings to eliminate dumpster diving. And these underground economies where we have the exchange of infested materials, there should be logistics to deal with throwing out materials that are suggestive of being infested. Allow access to inspections or repairs. Treatment preparations always completed according to directions. No self-treating. If no landlord action, there should be outlets for tenants to go and report to other entities, perhaps public health department. And cooperate with bed bug prevention.

Obviously this has to be an open forum. Tenants have to feel like they won't have a problem later on or there may be some sort of retribution by the managers of the property or property owners, or any sort of actions toward eviction or something. Anything to indicate it might be their fault. This is all involved in a team-like structure for success.

Another member of the team is the housing provider. Obviously they need to cooperate with the residents and provide the residents with an open and friendly sort of environment where they're willing to work with the tenants in conjunction with the pest control operator.

Immediately make efforts to correct infestations.

Immediately contact the pest management professional.

Allow the pest management professional access.

The landlord and the PMP educate tenants. These can be held in meetings, meetings where maybe light beverages are offered. A very friendly type meeting where there's no mandatory attendance but where attendance is encouraged and open. Q&A sessions are allowed. A really friendly and open environment so that education can be disseminated. Handouts should be pictorially-based and not have a lot of text or things that cannot be well interpreted by language barriers or, again, maybe there is some sort of illiteracy issue there. But these pictorial handouts are much more effective in communicating what these tenants should be doing, both in preparation of services and aftercare.

Lease statements might be necessary on both parts.

PMP must have proper license certification. Certainly proper insurance with errors and omissions, liability coverage. Trained and certified technicians. The prevention system in the IPM template should involve constant inspection, constant monitoring. Complete testimony and attendance of building inhabitants should be followed up on and taken seriously. Communication with all parties. Education of all parties. Quality assurance. And then compliance to the program on the parts of all parties.

Read and understand and follow pesticide product labels as part of EPA Administrative Law under FIFRA, Federal Insecticide, Fungicide, and Rodenticide Act.

Bed bugs found in research are about 70% on the bed, or in the bed, or in the structure of the bed. They tend to set up toward the headboard and the head side of where the inhabitants sleep and sort of radiate out from there. Again, using this phoresy they can locate into these environments in our stuff as earlier described and then move out biologically. There's a biological radiation as well that occurs where the females will move out away from the males, a sort of traumatic insemination strategy of reproduction. The females, by behavior, will move out, and the males will pursue the females in an effort to reduce the ratio

NEHA Got Bugs? Get Sued!

or even the ratio of females to males for successful copulation and reproduction. This allows for very high-end pecunity or satiety.

Technicians should be trained in recognizing the health and safety concerns associated with inspecting and treating for bed bugs. When working in bed bug infested sites, technicians run the risk of carrying bed bugs in their clothes and equipment to their homes, office, vehicles, or to other sites.

This high reproductive capacity.

Assume beds – well, assume everything is infested when you're called to a scenario, a situation. Avoid leaning across or sitting in a bed or furniture. Minimize contact. Bring a minimum of equipment in with you. Perform an inspection of your own clothing, your person, your equipment before leaving the site. You don't want to take bed bugs with you.

Launder all clothing upon returning to your office or home location. Put all these materials as you can in a dryer. Put it on high heat for 20 minutes. Consider carrying an extra set of clothes if you're dealing with badly infested locations.

There obviously are issues with slips, trips and falls, lifting heavy equipment like mattresses or heavy materials like mattress, box springs, furniture. Technicians should be trained in proper lifting techniques and blood-borne pathogens.

All people's materials should be treated with respect and dignity to the inhabitant. And, obviously, avoid reaching, you know, behind anything, to avoid sharps. Some particular pest management professionals and allied practitioners might wear Kevlar gloves underneath their level of protection gloves, whatever type of material you're using, avoid latex, but whatever type of material glove you're using, it's advised to wear the gloves that allow protection from punctures, the Kevlar gloves.

Look as Exchange Principal no one commits a crime without leaving something behind and/or changing the environment. The longer the time, the more exchange of evidence.

As we saw earlier, bed bugs, and the infestation of bed bugs left to continue is a crime scene.

Every single family home treatment is about \$500.00 to \$1,500.00. Multiple unit housing infestations become disputes over responsibilities for treatment and payment. There's a big disparity in low income housing. Bed bug infestations go unreported and then this increases self-treatment. As you can see, this is based on a 2012 survey where the median range is about \$500.00 to \$1,500.00 up to well over \$3,000.00. This puts this well out of economic range of low income housing.

Liability stems from uncertainty. Good service cheap won't be fast. Good service fast won't be cheap. Fast service cheap won't be good.

Obviously there has to be a contract between the parties. There has to be a written fee structure. There has to be proper insurance, liability coverage and so on. Proper licensure and proper certification.

The contract between parties is essential. It underwrites the entire IPM template. Have terms in writing. Specify work to be performed by who or whom. No guarantees or limit them. Have client initial every paragraph. Specify client's duties to prepare for treatment. Specify costs of treatment and aftercare, aftercare being essential.

If your client doesn't want to spend the money or make that investment to eliminate the bed bug problem that exists, perhaps you may need to refuse the job. It's recommended clients sign a letter of declination being fully informed on the services you offer and what's required to manage and eliminate bed bugs and the appropriate aftercare. A signed letter with their indicating knowing this by both parties, put in a file. Or perhaps send a post-contract confirmation letter so that all services are well understood.

NEHA Got Bugs? Get Sued!

Fee structures, again, must be one in writing. A rate card. You will be prepared to provide a written estimate, not something on the back of a business card or something just verbal or some arbitrary number. Specify the work to be performed. Specify initial costs. Make sure future costs are noted including aftercare. And be careful about guarantees.

Insurance coverage is essential. General liability may not cover much. Without errors and omissions there's very little coverage. You need a professional liability policy with E&O, errors and omissions. Make sure the insurance agent is fully informed on what's required for your business model or your participation so that you are appropriately covered.

What about these laws where they're filing these class actions? The primary one is UDAC, Unfair Deceptive Acts and Practices. This is a Consumer Fraud law. They exist in one form or another in most states. The Consumer Fraud can potentially award the plaintiff, plaintiff's party, actual damages plus treble damages, or three times damages, and attorney fees if it goes to court. It's generally not covered by insurance because it is a deceptive act. Someone has to pay. Generally anybody with deep pockets. And, of course, as a result of these claims, there has been some action where the insurance providers for the defense that have to pay off are seeking cross claims to obtain, if you will, some of their loss, some of the monies that they have to pay out in defense of these cases. And they're filing these cross claims to other parties, it could literally be any party, for cost recovery.

When tenants bring lawsuits against property managers, the insurers and their lawyers will look for secondary sources of funding the damages, especially in the cases where the amount being claimed is significant. In cases both in Iowa and in California involving bed bugs, insurers have either threatened or filed cross claims against PCMs.

So what happens if you're served, or you find yourself in a lawsuit? Well, some of the basic things are call your insurance company, call your attorney. Do not call the plaintiff or plaintiff's attorney. Do not talk to the media. Regrettably, as these cases increase in number, which they are, the question is not necessarily if you'll be sued, but rather when you'll be sued.

There appears to be a gap in standard PC liability policies involving structural pest inspections where the PMV conducts an inspection for (inaudible). The gap exists where the inspection reveals no pest activity but where the client or a third person claims bodily injury as a result of the pest. The problem with the gap is that while no pests may have existed at the time, the policy may not only exclude the bodily injury claim, but the insurance carrier's duty to defend the claim. The basis for the exclusion is found in the policy language that fails to identify the building owner has a plan due to no pest management treatment being rendered. This places the PC at risk for merely conducting an inspection, which is required under IPM. This makes it essential that the PCO check their policy and send a letter to their carrier to declare coverage for these inspections that do not reveal a pest. Relying on the E&O rider is not proven as the rider is not a true professional liability policy as normally extended to licensed professionals, such as a malpractice policy, and consequently has very limited coverage. This potential gap is an industry-wide problem that needs to be resolved on an industry-wide level.

It's essential that pest control operators look at their policies and understand that they are covered for inspections resulting in diagnostic applications or applications of insecticides and so on and other control measures in pursuit of the elimination and management of bed bugs. In some policies, inspection, under the IPM template, is excluded on a pest control operator's policy.

Account type plus pests minus restrictions equals control measures.

This is a basic overview of what IPM essentially or very simply put. You have to determine what type of account you have. What pests are you dealing with? Obviously you have the bed bugs. There might be others. What are the restrictions? What is it you cannot do to understand what you can do. And then you can determine domestication of things that you can turn to your benefit and develop appropriate control measures leading to elimination of bed bugs and the appropriate aftercare to an ongoing program. These

NEHA
Got Bugs? Get Sued!

are biological systems that require – are cyclical and ongoing and require a system that exceeds their ability to reproduce and infest, and that's what the IPM or Integrated Pest Management template is.

We have a bed bug manual available. You can go to PestWest.com or dial 866-476-7378 and request this. We'll be happy to send it to you. We also have a Version Three coming out later this summer.

And Newman's old post is regarding what society went through on bed bugs. This is one in particular. Be especially watchful at night and allow none to pass at any time. Don't let a bed bug put the bite on you. Seek, sight and destroy!

(Inaudible) also called a CSI kit. This particular CSI kit comes to us from forensics and blood pattern recognition. Here's a 455 nanometer blue light to energize a surface or contrast a surface. And you shift that into the 540 nanometer range if you will. In the orange, sort of in the back end of the yellow-green you can see the fluorescence. Bed bug eggs will fluoresce. And it gives you an interesting tool for visual inspection for bed bug reproductive capacity.

In this image you see, on the upper right you see, the bed bug eggs fluorescing and sort of capture those shaped affairs. Use the Stokes shift. This occurs when an orbital electron of a molecule, atom or nanostructure relaxes its ground state by emitting a photon of light – this is called photon bounce – after being excited to a higher state by some kind of energy, in this case a blue light. And you see this absorption-emission cycle in what's called a Stokes shift as presented here in this graph. And this Stokes shift is the fluorescence which you see, and it's constant, of course, as you constantly energize the surface with the blue light.

This also comes with a Life Cycle of the Bed Bug. These are actual specimens. Of course they are deceased. We provide eggs, first, second, third, fourth, fifth instars, a exuvia or a cast cuticle from molting. And then morphology as well as the larger adult male and female bugs. This is an excellent tool for training because many people have never seen a bed bug let alone understand how large or small they are.

With that I thank you very much for attending Got Bugs? Get Sued! Thank you.

Thank you, Dr. Mitchell, and thank you everyone for attending today's presentation, Got Bugs? Get Sued! On behalf of the National Environmental Health Association and our presenter, thank you for joining us today.