Message from the President  By Travis Lucas

The same memory pops into my head every time I pass a small Mexican restaurant in Wheatland, Wyoming. It was there, April of 2006, that I trained my first technician to eradicate ants. He wasn’t our first technician, that predated me by quite a bit, but he was the first tech that I had ever trained. It seems like a silly thing to attach sentimentality to, “Wow, you taught a dude how to kill ants!”, right? Yes, that is right, I taught a dude how to kill ants. It was important because I think it’s thrilling to pass on the knowledge and experience I’ve gained in doing something I love. That “dude” went on to be a good inspector, a good communicator, and a good all-around technician. So good, in fact, that he went on to buy out one of our competitors and go head-to-head with us in one of our better termite markets! Sour grapes aside, this demonstrates an opportunity that is available to all of us, that of teaching the next generation of pest management professionals.

There are many good resources for education and training in our industry such as our National Association’s NPMAPestWorld.org, UNL’s Pested.UNL.edu, Purdue’s distance IPM courses, and even industry operated centers such as Univar’s Pestweb, just to mention a few. I think we can all agree, though, that the most impactful training, and in some cases, the only training, we receive was hands on. Training from a dad, a grandpa, that guy who hired us for the summer to drill holes, was what gave us the tools that we rely on to this day. “Book learning” is definitely an important foundation for a business like ours that focuses on biology, technology, and good judgement, but experience can get to the essence of a pest infestation and its resolution. The hands on experience that you have accumulated can help a tech in the field, help a sales person satisfy a customer, and help a small startup navigate the unique character of our business. I am forever grateful to my dad and grandad for giving me an early opportunity to attach sentimentality to, “Wow, you taught a dude how to kill ants!”, right? Yes, that is right, I taught a dude how to kill ants. It was important because I think it’s thrilling to pass on the knowledge and experience I’ve gained in doing something I love. That “dude” went on to be a good inspector, a good communicator, and a good all-around technician. So good, in fact, that he went on to buy out one of our competitors and go head-to-head with us in one of our better termite markets! Sour grapes aside, this demonstrates an opportunity that is available to all of us, that of teaching the next generation of pest management professionals.

Age 16, while thinking of anything but pest control, and my future in general, I wound up in Dallas with mom and dad at an industry conference. Dad was the only one registered for the event but there was always a lot of activity in the lobby after the sessions ended. Dad made a point of introducing me to a man whose credentials meant nothing to me, but he made a point of asking me questions about myself and our family business. He told me that I really should stick with pest control, that it can be an exciting career, and that I had a real future in it. “Nice guy,” I thought. Years later, I realized just who that 1999 Hall of Fame inductee, nice guy, Norm Cooper was. Dad invited him to speak to our association at the time, and he gracefully accepted. His direction on budgeting and management was a memorable conference for many at the time.

Over the years I have benefitted, not just from the wealth of experience of industry leaders, but, more importantly, from their willingness to take an interest in me and share that experience. Have you ever “reinvented the wheel?” It’s exhausting! The challenges that you face in your operations can seem daunting, complicated, and while you’re sure that no one has experienced anything quite like them, you’re wrong. While I’m name-dropping here, I recall a series of telephone and email exchanges I had with NPMA past president, Don Jamison. He took the time to review the details of our business, our market, customer makeup, and financials. Throughout long conversations punctuated with Don’s colorful illustrations, he identified areas of our business that needed to be addressed, decisions that needed to be made, and in general, congratulated us on where we were at altogether. He also alerted me to some cost saving measures that we should take. I assured him that those things were unnecessary or even impossible. He made it clear that if he was wrong he would make a special trip to Scottsbluff and perform a very self-deprecating act in the town square as penance. The guy was a prophet. Two

Continued on Page 3
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years later we were financially forced to make the decisions that he recommended we volunteer for. He knew how to build the wheel and I should have listened.

The NPMA has a program called Mentor Match which is exactly what it sounds like. You can select from several topics you would like direction on, ranging from the technical, business management, and even personal development. I can’t emphasize enough the value of this and similar programs that the NPMA provides. Allison Allen spoke about some of these opportunities at the UPM conference. Use the website, download the app, attend other conferences that they offer. We pay for this stuff, use it! On a more localized level, use the resources inside of our own state. Talk to your product reps, you might be surprised to know that many of them started out as pest control techs and have managed and even owned their own companies. Talk to the researchers and presenters at our conference. Your field experience is valuable to them and they’re usually excited to hear from operators. Talk to other members of the association, they’ve navigated the waters that you’re presently in. And, most importantly, be there for someone else. You have something to offer someone who is new to the business, the young technician, the new business owner, the termite company that is pursuing other markets. If you’ve been there, you can help, be a mentor. If you’re any of the above mentioned that could use some guidance, seek out a mentor. An association is a special community of people working towards the same cause. Let’s work to improve ourselves and foster growth in others. Let’s work together.

**Continued from front cover**

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**Coming Soon To A Theater Near You: Bed Bugs?**

Call it “The Invasion of the Movie Theater.” Only this particular movie—with an undeniably skin-crawling plot—isn’t really a movie at all.

According to the Sun-Herald newspaper, patrons at the Cinemark 16 in Gulfport, Miss., recently reported being bitten by what they suspect are bed bugs after attending a movie at the multiplex.

“As I’m watching the movie I kept itching real bad,” Miranda Rester wrote in a post on Facebook. “I started to realize I had big (welts) all over my shoulders and legs. ... After the movie was over I went into the restroom to look in the mirror and I was covered in bite marks!”

After seeing the alleged bite marks a theater manager told her it might have been an allergic reaction to cleaning supplies used in the theater, Rester wrote. He then gave her free movie passes.

Because bed bugs don’t carry disease, a Health Department spokeswoman said they fall out of the department’s purview.
Fossilized Tick Carrying Pathogens in Mammalian Blood Cells Discovered in 15-Million-Year-Old Amber

Ticks have been pathogen-carrying parasites for a very, very long time.

A new discovery in a specimen of fossilized amber, roughly 15 million to 20 million years old, reveals a tick encased adjacent to mammalian blood cells infected with microbes resembling those in the order Piroplasmida. Today, related pathogens are known to cause Babesiosis and Texas cattle fever. The research was published in March in the Journal of Medical Entomology.

The finding “shows that ticks have been vectoring protozoan pathogens for millions of years and that humans and other animals infected today with piroplasmic diseases like human Babesiosis, which is considered an emerging disease, acquired the pathogens from ticks feeding on wild mammals, especially monkeys,” says George Poinar, Ph.D., author of the research paper and an entomologist at Oregon State University. “It also shows that these pathogens had millions of years to perfect their infectivity and transmissibility, which makes them so difficult to control today.”

The amber specimen comes from a collection found in the Dominican Republic. The tick, an engorged nymph of the genus Amblyomma shows two holes on its back, and the nearby blood cells are of a size that could have come only from primates on the island. (Mammals like dogs and rabbits have similar sized blood cells but do not appear in the fossil record on Hispaniola.) Poinar says the tick most likely parasitized a monkey and was then picked off by another that was grooming it and dropped in tree sap that fossilized. He called it a “one-in-a-million” find.

In examining the specimen, Poinar both analyzed the blood cells near the tick and then cracked open the amber to examine the gut contents of the tick, as well. In both places, he identified developing piroplasms in the mammalian erythrocytes.

“Aside from providing the first discovery of fossil mammalian red blood cells and the first fossil intra-erythrocytic hemoparasites, the present discovery shows that tick-piroplasm associations were already well established in the Tertiary,” Poinar says. “This discovery provides a timescale that can be used in future studies on the evolution of the Piroplasmida.”

Reprinted from Entomology Today.

The ABC's of Pest Control: Allergens, Baits, and Cockroaches

On March 2, Cornell University’s StopPest program hosted Dr. Schal for a cockroach control webinar specifically designed for people working in multifamily housing. While designed for multifamily apartment managers, this session should also be useful for pest management professionals.

Cockroach infestations can get out of hand quickly in multifamily housing. Best practices and treatments can turn things around to help maintain control. Watch this webinar on reducing asthma triggers in housing with effective cockroach control. You’ll hear from Dr. Coby Schal, Ph.D, Department of Entomology, North Carolina State University. He will speak about his research on effective baiting techniques, and ineffective controls like total release foggers (bug bombs). Cockroach allergens have been linked to the development and increase in symptoms of allergies and asthma in cockroach sensitive individuals. You’ll learn how allergen levels can be significantly reduced with cockroach control alone, the most effective approach being gel bait treatments. Dr. Schal’s work shows how an integrated pest management (IPM) approach with intensive, targeted cockroach control can lead to both dramatic reductions in cockroaches and clinically significant declines in cockroach allergens. You’ll get the information you need to advocate for and implement an IPM approach to cockroach control. This webinar is for all housing professionals and partner agencies who want to make housing safer and healthier for those that live and work there.

To view online, visit www.stoppests.org/ipm-training/training-opportunities/stoppests-webinars/the-abc's-of-pest-control-allergens-baits-and-cockroaches/.
Fun Spider Facts PMPs Need To Know

Last year an article was published by Matthew Bertone and colleagues at North Carolina State University about arthropods found in homes. The only organism found in 100% of the homes and over 90% of the basements surveyed was spiders. The only other organisms that came close were flies and ants and carpet beetles. By contrast, German cockroaches were found in only 6% of homes and fleas in 10% of homes.

What this means is that everyone in pest control needs to know something about spiders. So here are some fun spider facts that you can impress your family and friends with.

- Cobweb spiders were found in 100% of homes in a recent survey in North Carolina.

- Spiders consume an estimated 400-800 million tons of prey every year, at least as much meat as all 7 billion humans on the planet (400 million tons of meat and fish annually).

- The world spider population weighs 29 million tons, as much as 478 Titanics.

- Most spiders kill and eat prey in forest and grasslands (95%) and only 2% of annual spider prey are eaten in agricultural lands, probably because of the regular disturbances caused by farming activities.

- Spiders have been around about 400 million years, longer than all but perhaps the earliest insects.

- Over 45,000 different species of spiders have been described by science. Only about 3,800 species are known from the U.S. and Canada.

- Half of the different species of spiders in the U.S. are less than 3 mm (1/8 inch).

- Spiders disperse largely by parachuting or “ballooning.” Young spiderlings produce lightweight strands of silk to catch updrafts, especially on sunny mornings.

- Some spiders have been captured ballooning at altitudes up to 2.5 miles, over 13,000 feet. It’s thought that electrostatic forces assist with flight.

- Spiders feed exclusively on liquids. They lack jaws to chew food.

- Although nearly all spiders likely have venom, only a handful are capable of causing bites that are medically important to humans. These include the widow and recluse spiders in the U.S.

- If you ever find yourself walking into an orb-shaped spiderweb, relax. None of the orb weaver spiders are considered dangerous to humans (For you Hobbit and Lord of the Rings fans, Shelob was more likely a cobweb spider, not an orb weaver).

Reprinted from “Insects In The City.”
Bed Bugs Show Early Signs of Resistance to Chlorfenapyr and Bifenthrin

Pest management professionals battling the ongoing resurgence of bed bugs are wise to employ a well-rounded set of measures that reduces reliance on chemical control, as new research shows the early signs of resistance developing among bed bugs to two commonly used insecticides.

In a study published the second week of April 2017, in the Journal of Economic Entomology, researchers at Purdue University found significantly reduced susceptibility to chlorfenapyr among three out of 10 bed bug populations collected in the field, and they found reduced susceptibility to bifenthrin among five of the populations.

The common bed bug (Cimex lectularius) already shows significant resistance to deltamethrin and some other pyrethroid-class insecticides, which is viewed as a main cause of its resurgence as an urban pest. In fact, 68 percent of pest management professionals identify bed bugs as the most difficult pest to control, according to a 2015 Bugs Without Borders survey of pest management professionals conducted by the National Pest Management Association and the University of Kentucky. Little research had yet been done, however, to examine potential resistance to bifenthrin (also a pyrethroid) or chlorfenapyr, a pyrrole-class insecticide, which led the Purdue researchers to investigate.

“In the past, bed bugs have repeatedly shown the ability to develop resistance to products overly relied upon for their control. The findings of the current study also show similar trends in regard to chlorfenapyr and bifenthrin resistance development in bed bugs,” says Ameya D. Gondhalekar, Ph.D., research assistant professor at Purdue’s Center for Urban and Industrial Pest Management. “With these findings in mind and from an insecticide resistance management perspective, both bifenthrin and chlorfenapyr should be integrated with other methods used for bed bug elimination in order to preserve their efficacy in the long term.”

They tested 10 populations of bed bugs that were collected and contributed by pest management professionals and university researchers in Indiana, New Jersey, Ohio, Tennessee, Virginia, and Washington, DC, measuring the percent of bed bugs killed within seven days of exposure to the insecticides. Generally, populations in which more than 25 percent of the bed bugs survived were deemed to have reduced susceptibility to the insecticide based on statistical analysis performed in comparison to the susceptible laboratory population.

Interestingly, the researchers found a correlation between chlorfenapyr and bifenthrin susceptibility among the bed bug populations, which was unexpected because the two insecticides work in different ways. Gondhalekar says further research is needed to understand why the bed bugs that are less susceptible can withstand exposure to these insecticides, especially chlorfenapyr. In any case, adherence to integrated pest management practices will slow the further development of resistance.

“There is a plethora of research that has shown that if insecticides are integrated with additional control measures such as vacuuming, steam or heat, mattress encasements, traps, and desiccant dusts, effective bed bug control can be accomplished and theoretically this should reduce the risk of resistance build-up in populations,” Gondhalekar says.

Your PS4 Might Be A Cockroach Apartment Complex

The PlayStation 4 is so much more than a gaming machine—it is a streaming media hub, a gateway to live sports broadcasts, and also, Kotaku reports, an attractive modern home for chittering swarms of cockroaches. Writer Cecilia D’Anastasio learned this when visiting a console repair shop that had “black garbage bags… full of roaches” piled up in the corner.

Che added that roach-infested PS4s are so common that XCubicle now charges a $25 “roach fee.” They get at least one each week. Other console repairmen interviewed say that at least half of the PS4s they receive are loaded with roaches.

Uncharted 4, by comparison, was loaded onto around 20 percent of PS4 consoles (no word on how many broken PS4s it has been found inside). Why do more roaches choose the PS4? They love the amenities: the wide base vents they can swagger through like saloon doors, the warm power supply that serves as a family hearth, and the circuit boards their kids can fall onto, melting their bodies.

As D’Anastasio writes, the PS4 may only seem to be favored by insects because it’s currently favored by people. Roaches love older machines, too, as stories going back console generations attest. Yet most players don’t even notice the houseguests living under their TV. “The PS4s just stop working and the owners don’t know why,” a repairman tells Kotaku.

Save yourself some mental anguish by assuming the worst: Your gaming consoles are all chock-full of bugs, you will never see them, and you might as well upgrade your roaches to a PS4 Pro suite with higher ceilings and a larger power supply to cuddle up inside.

Source: via Kotaku, which like The A.V. Club, is owned by Univision Communications.
Online Reviews: How YOU Should Handle Them

There’s one fantastic way to respond to online reviews, and it isn’t defending yourself or your business against trolls.

Consumers have many options for sharing their opinions about their interaction with businesses today, and it can be a good thing—or a really bad thing—for business owners, including pest control professionals, if the opinions being shared are negative and go unanswered.

No longer is word of mouth the predominant medium for consumers to use in talking up or talking down the way you handled your last service or how your employees treated clients and/or potential clients; there is now a seemingly inexhaustible list of digital mediums where opinions are easily shared. Therefore, pest management professionals need to take a proactive approach that marketers refer to as “reputation management.”

Unfortunately, the Internet has given rise to a dreadful segment of the online population known as “trolls.” These are people who look for an opportunity to post inflammatory comments in an effort to incite a reaction. They are generally fairly easy to spot, and responding to them should be avoided, at least in a public forum.

Brian Sparker, head of content marketing at ReviewTrackers, a company that assists clients in tracking online comments and reviews, said worrying about trolls shouldn’t be a priority. For instance, he points out that around 67 percent of reviews on Yelp, a crowdsourced review site, are positive with four and five star ratings being the norm. Sparker said that statistic is consistent with other sites his company monitors.

“Sleuth it out yourself,” said Sparker of qualifying reviews from potential trolls. “Ask for their phone number and say, ‘I’d like to talk to you about what happened.’ Follow up in a good customer service way.”

There are also consumers who will run to their computer or mobile device to immediately lash out after they’ve been sold a subpar product or believe they’ve been mistreated. These are reviews that can hurt your business if you don’t respond appropriately. However, Sparker said the biggest mistakes brands make is when they try to defend their company or their actions.

“It spirals out of control,” Sparker said of the interaction that isn’t handled appropriately. “(The conversation) is online and in a public forum and it’s not recommended. Apologize and take the conversation offline because it’s not a good idea to converse with an angry customer in a public forum.”

While Sparker is a proponent of dealing with angry customers in a less public manner, he said it is also important to update the status of the issue for current and future viewers of the thread.

“Follow up after the issue has been resolved to deter negative feedback later on,” he said, adding that the follow up can be the difference between making a sale or provoking further negative commentary that hurts your brand.

In some cases, the reviewer is overreacting, misstating facts or fabricating facts to bolster their situation. In other cases, they have valid complaints that deserve an explanation and an apology. Both situations deserve your attention.

Instead of jumping into a defensive mode when criticism lands at your front door, look at it as a way to improve your business while also following through on your reputation management plan.

What You Can Do

Consider these tips as you work out your online review response strategy:

Respond promptly, but only if you can do so without emotion. It’s natural to be upset/mad/infuriated by a critical opinion that anyone visiting the site can see. Resist the urge to make the response until you can do so without emotion, because writing your response while angry/hurt will probably escalate the situation.

Some reviews are factually incorrect and should be responded to quickly. In a professional manner, write a point-by-point response that lays out all the reasons the review is incorrect, and don’t make it personal.

Never create a fake account or a new persona to defend your business. Getting caught doing this can seriously affect your credibility.

Be knowledgeable of the platform through which you are interacting. For instance, Reddit has a culture all its own, leaving new users to feel like a bit of an outsider. Jumping into a thread in a group you’re not familiar with can prove ineffective at best and damaging to your brand at worst.

Never lie. Responding to a review with deception will attract more detractors and ultimately cause more damage than what originally existed. Honesty is always the best course of action.

Yelp offers business page owners the opportunity to respond to negative reviews through email, which is a good option for sensitive issues that need to be handled offline. However, once the issue is settled, update the status to the public forum.

Don’t ignore bad reviews that have merit. Even the seemingly insignificant bad reviews can get legs and go to places that will do your business no good. Enter the conversation, get it on track, and work toward a resolution.

Be empathetic and apologetic (if necessary) in your response to the specific issues where the client is unhappy. This will ensure that you’re not taking a defensive tone and that you’re an actual concerned human being, not a business owner simply running damage control.

Offer a solution to the problem. Start by researching the issue that prompted the negative review, respond with your findings, and offer a solution.

Use technology to help monitor your online reputation. There are a number of vendors offering technology that helps you gain insights into what is being said online about your company. Examples include Bright Local, ReviewTrackers, Chat Meter, and Vendasta, to name a few.

By James Myers, Contributor
A Network of Broad-Spectrum Control

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