the future of bed bug monitoring
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US DOT Guidance for PMPs
Transporting Heat Treatment Equipment or Supplies

The use of heat to control pests is not a new concept in the pest management industry. In recent years, heat has garnered renewed attention as a method to control bed bugs. The method has become widespread for bed bug control, with three basic types of heaters being employed: propane fueled devices, electric units powered by existing electrical circuits and electric units powered by portable generators. The equipment and fuel needed for thermal control requires specialized equipment that may require additional regulatory compliance measures. This Library Update is intended to provide a summary overview of the regulations that pest management firms providing heat treatments should be aware of.

THE FUTURE OF BED BUG MONITORING
By Dr. Changlu Wang & Richard Cooper
Department of Entomology, Rutgers University

Because bed bugs are one of the most commonly discussed urban pests in the United States, manufacturers have quickly responded to the need for easy bed bug detection by offering various detection tools or services. A search over the internet reveals at least 26 bed bug monitoring tools or techniques are present. However, questions arise as a result of the steady influx of new bed bug detection technologies: how effective are they in the field? Can bed bug monitoring be made more effective? How do current monitoring technologies help the day-to-day bed bug management programs? This article will offer pest management professionals insight based on several recent research studies.

FEATURES

THE FUTURE OF BED BUG MONITORING

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The Old Saying Goes, “It Can’t Work Smoothly with Square Wheels”

Many of us are so busy caught up in meeting goals and objectives as defined by our business that we generally do not have the time to stop, step back and look for obvious better ways of doing things.

The reality is, in any organization, the critical themes of communication, leadership, motivation, quality, and managing and leading change, must be addressed to make real progress forward.

Through the efforts of our leadership and staff, NPMA is clearly moving in the right direction as an effective voice for our industry. We also realize that we need to create a new, shared vision about how things can be, challenging ourselves to not become complacent, but rather proactively define the future of our industry.

This February, NPMA is taking a concerted look at itself to ensure that we are not riding on square wheels. The NPMA Board of Directors will be revisiting our strategic plan because, while what we’ve been doing has worked, in order to continue our pattern of growth there must be opportunities for improvement.

NPMA has the capacity and capability to support and protect your company’s interests. However, maximizing our effectiveness is a difficult task that must involve all of us. Your involvement is critical.

Involvement means that you acknowledge your ability to make change. And it’s your ability to make change that impacts our world.

As your organization, NPMA is committed to representing you and your interests in the most professional manner possible. Of course, distractions will occur, however, the primary objective must be to remain effective and represent you and your concerns. But… to represent you, we must be able to hear your voice clearly. For that reason, I hope that you will take this opportunity and my invitation to become increasingly involved in your organization.

Each member has different talents and has reached his or her level of success by different paths. You have a hands-on reality and know the bumps of the journey. It is by sharing your talents and experiences with your colleagues that we can each make our future more secure and stable as we each move toward the future that we all desire. But if you don’t feel like you are involved in the decisions that your leadership is making, becoming and staying motivated and engaged is difficult.

The fact is we cannot do it without your help. If you have not become involved in your association yet, there is no better time like the present. Sign up for a committee. Send a letter to your congressman. Participate in an NPMA event. Sign your staff up for a webinar or online training program. There are many ways for you to get involved…and we need you to do so. As has been true for more than over three quarters of a century…your involvement is our lifeblood. We would not exist without it. «
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The new contact kill product with broad appeal, bugs are DYING to try it.
Bed bugs are one of the most commonly discussed urban pests in the United States. Unlike most other urban pests, bed bugs can affect anybody: rich or poor, at work or at home, in clean or in unsanitary environments. Perhaps the most annoying aspect of this pest is that it bites people when they are asleep and hides until the next meal. People are often frustrated and perplexed by the ability of this blood sucker to evade detection, often reaching large numbers without the occupants seeing a single bug.
monitoring
Manufacturers quickly responded to the need for easy bed bug detection by offering various detection tools or services. A search over the internet reveals at least 26 bed bug monitoring tools or techniques (Table 1) are present. The underlying principles of these monitors/techniques fall into four categories: 1) bed bugs seek harborage after feeding; 2) bed bugs are attracted to hosts through chemical lures and heat; 3) bed bugs cannot climb up a smooth hard surface or may get stuck on a sticky substrate; and 4) bed bugs breathe, emit unique smell, or possess unique DNA makeup.

Questions arise as a result of the steady influx of new bed bug detection technologies: how effective are they in the field? Can bed bug monitoring be made more effective? How do current monitoring technologies help the day-to-day bed bug management programs?

Studies demonstrated that some bed bug monitors can significantly improve our ability to detect bed bugs and determine the effectiveness of bed bug elimination efforts (Wang et al. 2011, Wang and Cooper 2011a). However, efficacy claims for most detection tools and methods are based upon laboratory results rather than field testing. This is problematic because the behavior of bed bugs is complex and laboratory results often don’t translate to what occurs in the natural environment. Thus the response of bed bugs placed in a small confined arena can be very different from those in naturally infested structures. For example, in tests with a device that uses chemical lures to attract bed bugs, traps captured a high percentage of bed bugs in a small arena in the laboratory environment, but failed to detect bed bugs when large numbers of bed bugs are present in naturally infested apartments even though bed bugs were readily seen by a non-trained person (Wang and Cooper, unpublished data). Similarly, some dog detection teams performed very poorly in the field but performed very well during daily training exercises (Wang and Cooper 2011a). The discrepancy between results obtained in controlled environments and real world environments suggests we must re-examine how monitoring tools and techniques should be tested. Without rigorous testing, it is unrealistic to claim a tool/technique is effective.

Passive monitors are relatively inexpensive and easy to use. Pitfall-style devices are designed to be placed under furniture legs. They take advantage of a very important bed bug behavior: bed bugs travel back and forth between furniture and the floor in search of a host or a harborage. Pitfall-style monitors are excellent barriers that protect the human host from bed bug bites. However, as a monitor, their effectiveness varied greatly. The color, surface texture, and the trapping mechanism all have significant effect on the trapping efficacy. We found bed bugs prefer black to white colors. They also prefer fabric to plastic surfaces. A bed bug is more likely to be caught by a pitfall trap than a sticky trap.

The active monitors employ one or several attractants to attract bed bugs to the monitor. It is known that bed bugs follow a combination of feeding and breeding sites, so attractiveness is critical to successful bed bug monitoring.

### TABLE 1. Types of bed bug detection tools and techniques based on internet search (as of October 2011).

<table>
<thead>
<tr>
<th>Type</th>
<th>Examples</th>
<th>Number</th>
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<tbody>
<tr>
<td>Passive monitor (without lures)</td>
<td>Climbup InsectInterceptor, Bedmoat, BB Alert, Bed Bug Detection System</td>
<td>9</td>
</tr>
<tr>
<td>Active monitor (with lures)</td>
<td>NightWatch, Bed Bug Beacon, dry ice trap</td>
<td>12</td>
</tr>
<tr>
<td>Detection based on bed bug smells or respiration</td>
<td>Trained dogs, BBD 100, Electronic CO2 detection kit</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>DNA test, camera</td>
<td>2</td>
</tr>
</tbody>
</table>
The underlying principles of these bed bug monitoring tools or techniques fall into four categories: 1) bed bugs seek harborages after feeding; 2) bed bugs are attracted to hosts through chemical lures and heat; 3) bed bugs cannot climb up a smooth hard surface or may get stuck on a sticky substrate; and 4) bed bugs breath, emit unique smell, or possess unique DNA makeup.

of chemical and non-chemical cues to locate the host. NightWatch, CDC3000 (no longer produced), and dry ice monitors were found being able to detect low level infestations in occupied rooms (Wang et al. 2011). Presumably, these monitors would perform even better in vacant rooms where there is no competition with the host. Both Nightwatch and CDC3000 employ CO₂ (pressurized cylinders as source), chemical lure, and heat to attract bed bugs. The dry ice trap only employs CO₂ to attract bed bugs. The fact that dry ice trap was the most effective trap among the three active monitors suggests a sufficient CO₂ release rate is the most critical element in an active monitor.

The CO₂ release rates from CDC3000, NightWatch, and dry ice trap are at least 42, 150, and 737 ml/minute, respectively (Wang and Cooper 2011b). Although dry ice trap is highly effective and affordable, it is limited by the availability of dry ice in many areas and the potential risk of accidental
exposure to children or pets. Pressurized cylinders provide high enough CO$_2$ release rates, but the system is expensive. Alternative CO$_2$ sources are being investigated and are employed in some monitors. Among them, sugar and yeast mixtures offer a convenient and safe CO$_2$ source, but the maximum CO$_2$ release rate was only 11 ml/minute in our laboratory tests. This rate is insufficient to attract bed bugs from a distance (e.g. a few meters) and explains why these devices can work so well in laboratory arena trials compared to the poor results observed under field conditions. A CO$_2$ release rate higher than this would require large amount of materials (several kilograms) and become impractical. A possible strategy of overcoming the obstacle of insufficient CO$_2$ release rate is to place multiple monitors close to bed bug hiding areas. Whether this kind of placement strategy is effective needs to be studied.

In addition to physical devices, canine scent detection has also emerged as a very popular method for detection of bed bugs particularly for large scale inspections. It is unquestionable that well trained dogs are highly accurate in finding hidden bed bugs in training exercises.

Bed bug monitors not only help detect infestations, but also provide important information about bed bug activities and/or their spatial distributions. Pitfall-style monitors, traditionally thought to be a device placed under the legs of beds and furniture can also be an effective tool for monitoring bed bug activity away from sleeping areas (Wang et al. 2010). Figure 1 illustrates the layout of pitfall-style monitors and bed bug counts in the traps after 7 days in a one bed room apartment. This apartment was occupied by one person. Bed bugs had been present in this apartment for at least a year. The existence of bed bugs around the entry door area indicates bed bugs may very likely spread into the hallway of the building. The large numbers of bed bugs off the bed area highlights the need for thorough treatments of the apartment.

Bed bug monitors may potentially be used as a control tool. When they are strategically placed
such as under bed and sofa legs and surrounding areas, the monitors may trap the few bed bugs present in a lightly infested environment. Alternatively, insecticides or other killing agents may be placed in or around the monitors to attract and kill bed bugs, thus, reducing the insecticide use and minimizing the environmental impact.

In addition to physical devices, canine scent detection has also emerged as a very popular method for detection of bed bugs particularly for large scale inspections. It is unquestionable that well trained dogs are highly accurate in finding hidden bed bugs in training exercises (Pfiester et al. 2008). However, there is an urgent need to determine the effectiveness of the training methods, evaluation standards, association between training performance and field performances, and factors affecting the field performances. The ultimate criteria for a well trained dog should be high detection rate (correctly alerting to a location where bed bugs are present) and low false positive rate (alerting to a location where bed bugs are absent) under field conditions.
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Heat Treatment for Controlling Bed Bugs
The use of heat to control pests is not a new concept in the pest management industry. For the last 20-25 years, heat has been used to control drywood termites as well as other structural pests. In recent years, heat has garnered renewed attention as a method to control bed bugs. The method has become widespread for bed bug control, with three basic types of heaters being employed: propane fueled devices, electric units powered by existing electrical circuits and electric units powered by portable generators. The equipment and fuel needed for thermal control requires specialized equipment that may require additional regulatory compliance measures. This document is intended to provide a summary overview of the regulations that pest management firms providing heat treatments should be aware of; however it should not be considered an exhaustive reference. Check with local fire code officials and Departments of Motor Vehicles to find out what additional regulations may apply to your situation.

US DOT Requirements for PMPs Transporting Heat Treatment Equipment or Supplies
PMPs performing bed bug heat treatments should be aware of federal and state commercial motor vehicle, motor carrier safety and hazardous materials transportation requirements. For instance, the weight of a typical pickup truck in combination with most trailers used to tow a heat treatment system exceeds 10,001 pounds (combined gross vehicle weight), the threshold for a myriad of commercial motor vehicle requirements.

While interstate and intrastate requirements may vary a bit, PMPs driving a vehicle and trailer in interstate commerce with a combined gross vehicle weight rating of more than 10,001 pounds are subject to commercial motor vehicle requirements such as registration, vehicle identification, and driver work-hour restrictions. Depending on individual states’ own transportation rules, vehicles with a combined gross vehicle rating of more than 10,001 pounds might also be considered as “commercial” vehicles even when operating within their home states, if they travel beyond a statutory maximum distance from their home location.

One of the first things PMPs using such equipment will likely be required to do is register with the Federal Motor Carrier Safety Administration and obtain a USDOT number. The required document to fill out and submit is Form MCS-150. The application and associated instructions can be accessed through the website below: http://www.fmcsa.dot.gov/registration-licensing/online-registration/onlineregdescription.htm The 10,001 pound threshold also triggers numerous other motor carrier safety requirements, including: · Application/hiring requirements · Medical certificate · Hours of service · Daily and periodic vehicle inspection reports PMPs using propane driven heat treatment systems may be subject to even more regulatory requirements such as federal hazardous materials regulations and commercial driver’s license requirements. Federal hazardous materials regulations (HMRs) exempt small quantities of hazardous materials (materials of trade) that are used in the course of a business offering and
**US DOT Requirements for PMPs Table A**

Transporting Heat Treatment Equipment or Supplies By Gross Vehicle Weight and Hazardous Materials (Propane)

(Note: The chart below reflects interstate transportation requirements. Interstate and intrastate requirements may vary so be sure to check with your state department of transportation)

<table>
<thead>
<tr>
<th>GVWR &lt; 10,001 lbs.</th>
<th>GVWR 10,001 to 26,000 lbs.</th>
<th>GVWR &gt; 26,001 lbs.</th>
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<tbody>
<tr>
<td>None</td>
<td>Vehicle identification report/Application with Federal Motor Carrier Safety Administration for US DOT # (Form MCS-150)</td>
<td>Commercial driver’s license</td>
</tr>
<tr>
<td></td>
<td>Minimum financial responsibility (49 CFR 387.9)/Form MCS-90/$1 million</td>
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<td>Hiring requirements (application questions, review of driver’s safety performance history, road test) (49 CFR 391, subpart B, C &amp; D)</td>
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<td>Medical qualification/certificate (49 CFR 391, subpart E)</td>
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<td>Fire extinguisher (49 CFR 398.4)</td>
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<td>Pre &amp; documented post-trip inspection/Daily driver vehicle inspection report (49 CFR 396.11)</td>
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<td></td>
<td>Stopped vehicle warning devices (reflective triangles)</td>
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<td></td>
<td>Brakes on trailers weighing &gt; 3,000 lbs</td>
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<td>Periodic (annual) inspections (49 CFR 396.17)</td>
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providing a service. Under the materials of trade exemption, persons transporting less than 220 pounds of propane are relieved of most HMRs. HMRs also relieve persons transporting less than 1,001 pounds of propane from placarding requirements. This is very significant because placarding triggers a slew of additional mandates including commercial driver’s license requirements. For starters, companies transporting 1,001 pounds of propane have to obtain Hazardous Materials Registration from the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration. Depending on the size of the company, fees range from $250 to $2,575, with a $25 processing fee. Below is the website to access the online application and related information. http://www.phmsa.dot.gov/hazmat/registration

PMPs transporting 1,001 or more pounds of propane will also have to obtain a commercial driver’s license with a hazardous materials endorsement and comply with several more CDL and HMR related regulations including HazMat endorsement threat assessment, drug and alcohol testing, emergency response information,
### US DOT Requirements for PMPs Table A continued

<table>
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<td>Hazardous Materials Regulations, including immediate telephonic report of hazardous materials incident (49 CFR 171.15) &amp; subsequent submission of a written Hazardous Materials Incident Report (DOT Form F 5800.1)(49 CFR 171.16), shipping paper (49 CFR 172, subpart C), marking (49 CFR 172, subpart D), emergency response information (49 CFR 172, subpart G) &amp; employee HazMat training (49 CFR 172, subpart H) requirements</td>
<td>Vehicle identification report/Application w/Federal Motor Carrier Safety Administration for US DOT # (Form MCS-150)/Renew every 24 months (49 CFR 390.19)</td>
<td>Commercial driver’s license w/HazMat endorsement/Transportation Security Administration required HazMat endorsement threat assessment/criminal background check</td>
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For the industry’s reference, NPMA has developed a chart to accompany this article to better crystallize the various transportation related requirements PMPs performing bed bug heat treatments may be subject to. For information pertaining to intrastate transportation requirements, which may differ significantly from federal interstate requirements, PMPs are strongly encouraged to go to their state Department of Motor Vehicle website. Click on the link below to access all 50 state DMV websites. [http://www.dmv-department-of-motor-vehicles.com](http://www.dmv-department-of-motor-vehicles.com)
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**Q** We are hearing reports about the kudzu bug and are starting to get our first calls about it now. What is the latest news on this pest and how can we control it?

**A** The kudzu bug (*Mega copta cribaria*) is an exotic invasive insect that was first observed in the United States in late 2009. First reports of this insect were from northeast Georgia, where pest management professionals encountered large aggregations of the bug on the sunny, south-facing sides of houses. Its presence has been now been confirmed in Georgia, North Carolina and South Carolina. Prior to being discovered in the United States, the species had been reported in Asia, the Indian Subcontinent and Australia.

The kudzu bug gets its common name because the invasive plant, kudzu, is one of its favorite foods. Unfortunately, in its native range it is also considered a pest on important agricultural crops like soybean. It is also known to feed on other crops such as beans, sweet potato, rice, wheat, citrus, potato and others. Kudzu bugs are known to have several generations each year. As temperatures and day length decrease, kudzu bugs seek shelter in protected areas including structures. Residential and commercial buildings located close to food sources (agricultural fields or kudzu stands) are at particular risk for invasion, since this species is an excellent flier. Similar to boxelder bugs, multicolored Asian lady beetles and the brown marmorated stink bug, kudzu bugs will congregate on the vertical surfaces of buildings to warm themselves in the fall. As temperatures cool they will move inside structures through cracks, crevices or other openings, to spend the cool winter months.

Treatment recommendations to manage kudzu bugs include exclusion by sealing potential entry points and screening vents and other openings. Bugs will begin migrating from food sources (typically kudzu or soybeans) as temperatures cool, and may continue for several weeks. Applications of appropriately labeled insecticides to surfaces where kudzu bugs may rest or into and around potential entry points may be useful. Wettable powder, microencapsulated or other longer residual formulations may offer the best results.

**Q** We are observing small brownish moths in a client’s home, but we can’t determine where they are coming from. They are not Indian meal moths. At first we thought they were clothes moths, but we can’t find any damaged fabric.

**A** The pest you are dealing with is the brown house moth, (*Hofmannophila pseudospretella*). It is not a very common pest, but can be a nuisance. This small moth ranges from 8.5mm (males) to 14.5mm (females) and has bronze colored wings covered with dark brown to black flecks. The reason that you are not seeing any damage in fabrics is that it might not be feeding on fabrics. The brown house moth has a wide range of foods that it will feed on including fabrics, seeds, processed grain, cereal, dead insects, dried flowers, furs and even dried bird or animal droppings. The omnivorous feeding habit of this species is one of the reasons that it is so successful.

Controlling the brown house moth is similar to the strategies that might be employed to control other stored product or fabric pests. Since we know what pest you are dealing with, the next step is to determine what it is feeding on. Identifying the brown house moth’s food source can be tricky because it feeds on so many different things and it might be feeding (and breeding) in multiple places at the same time. Start by checking the pantry for infested stored foods. Since you had already ruled out the possibility of the Indian meal moth, you might have skipped a thorough inspection of this area. In addition to cereals and processed grain products, inspect dried fruits and herbs for signs of moths or their larvae. The pupae of the brown house moth will incorporate bits of their food into their silken cocoon, but a careful inspection will reveal their presence. If you can’t identify an infestation in stored food products, inspect for alternative food sources such as animal hides, abandoned bird nests, dead insects inside wall voids, dried flower arrangements and other sources of food. Once the breeding location is identified remove the food source, and treat the area with an appropriately labeled insecticide to control any larvae that might be hiding in cracks and crevices nearby.
ANALYZING GROUP BUYING:
IS IT RIGHT FOR YOU?

BY LEE GIENKTE

You probably see many different group buying deals each day, from a $20 meal for $10 at the café down the street to a buy-one get-one-free glow in the dark mini-golf game. And you may wonder if your business should get on the bandwagon and offer a group buying deal through Groupon, LivingSocial or one of the many other group buying companies.

But before you make the call, you should ask yourself three important questions to make sure that group buying is the right thing for your company.

1 Are You Prepared for the Increase in Business?
You should first determine if your company can handle the increase in business that the deal will bring while still providing quality service to both your new and existing customers. If the people who buy your deal are unable to get an appointment for six months, receive products made in haste or encounter overwhelmed staff members, then they will probably not come back. And you will lose out on the main benefit of group buying—an increase in long-term customers.

Determine how many new customers you can realistically handle and consider putting a cap on the number of deals that you sell. It is more profitable in the long run to provide an excellent experience for fewer customers than to bring in a large group that leaves mostly unhappy.

Also, the reason for running a group deal is to acquire new customers—not give a steep discount to your current customers—so avoid sharing your deal via Facebook or other channels where existing customers may pick up the deal.

2 Negotiating Smartly with Cash Flow In Mind
Cash flow issues are one of the top ways business die. A group deal can kill your company because most group buying websites pay you on net terms (Groupon for example pays merchants 80% of the collected amount in 5 days with the remainder coming 60–90 days after the deal is run). So while the group buying site is holding your cash for 60–90 days, you’ll need to ensure you have enough cash on hand (or flow) to pay your staff and buy materials. Fall short on either and you can end up a creek without a paddle.

There are other idiosyncrasies of a group deal such as if a coupon is frequently redeemed—which happens—the business sponsoring the deal is on the hook for the loss. Also, pay attention to how they are passing the credit card fees on to you.

And lastly, and most importantly, consider the amount of revenue you are set to receive. Some aggressive sales guys will seek 100% of the revenue,
leaving you with a bill (but a whole bunch of new customers) while a shrewd business owner can end up with about half of the revenue and all those new customers.

3 Can You Retain the Customers?
Many is not most companies break even or lose money on the group buying deals themselves, the main goal of participating is to gain new customers for the future. Before considering the deal, consider how you are going to get the customers coming back. At minimum, you should be getting the customers’ email addresses and reaching out to them consistently after the deal. Similarly, getting them to like you on Facebook can be fairly powerful. And of course the best way to retain your new customers is to provide them with excellent service and products.

4 Can You Create the Right Deal?
A key to success with group buying is to create the right deal that will both bring in a large number of the right customers and make a profit for your business. If you offer a deal that is not enticing to potential customers, then no one will purchase it. But on the flipside, if you offer a deal where you lose money, then the deal was not a success for your business either.

Knowing your numbers and possibly bringing your accountant into the deal is key. You’ll need to know where your margins are, in addition to knowing what products really drive your business and what your average purchase is. With that information, you should create a coupon that is a tad under an average ticket would be, so that you make some additional money.

5 Track. Track and Track More
Make sure you are tracking each coupon that comes in the door. Know what they spent. Look at whether or not they spent more than the coupon or less. Look at how profitable (or not) each of these customers was and look at the number of customers become repeat buyers.

Ultimately, a successful group deal lies in preparation, good negotiation, and maximizing both the lifetime value of these new customers. Failing to do any of these things can lead to varying degrees of business disaster.

Lee Gientke is the managing partner of Webmix Marketing, a marketing agency that helps pest control companies with online marketing.
UNDERSTANDING QR CODES AND HOW TO USE THEM EFFECTIVELY

ANOTHER UP-AND-COMING TREND IN THE MOBILE MARKETING WORLD

BY MISSY HENRIKSEN
EXECUTIVE DIRECTOR, PPMA

It’s no secret that in today’s economy businesses are struggling to keep their customers satisfied while increasing their overall profit. At a time when cutting edge technology is changing the way we do business, using multiple marketing tools to promote your pest control products or services may be one of the keys to success. One specific up-and-coming trend in the mobile marketing world is the quick response code (QR code).

Increasing in popularity among small businesses, the use of the QR code is a creative marketing technique used to connect with consumers. QR codes are a relatively simple and inexpensive way to grab a consumer’s attention and drive them to some type of online destination where they can engage with a brand through contests, sweepstakes, social media, or other custom content.

QR Codes and Their Uses
You’ve probably seen these codes just about everywhere—on food and beverage packaging, in print advertisements, and even on bus shelters and mall kiosks.

QR codes are two-dimensional (2D) matrix barcodes that can hold thousands of characters of information. Created in Japan by a Toyota subsidiary in 1994 to help track automotive parts, this technology has grown in popularity over the past few years and is now utilized by a variety of other industries.

As of June 2011, QR codes had been scanned by over 14 million mobile users in the United States, according to a study by the market research firm comScore. While this number encompasses only 6% of mobile users, it is expected that QR scanning will continue to increase as more people buy Smartphones, and more brands find success with this marketing tool.

Retailers, record companies, government organizations, charities and commercial businesses are already using QR codes as a new way to advertise directly to their consumers. Pest management professionals can also benefit by incorporating this tool into their marketing strategy.

Want to see how a QR Code works?
Take a photo with an iPhone, Android or other Smartphone to find out where this code takes you.

How Do QR Codes Work?
These black and white patterned squares are scanned by taking a photo with an iPhone, Android or other Smartphone to link the user to digital content on the web that relates back to the product or brand being promoted. Users can download free apps that enable them to scan QR codes, such as RedLaser, ScanLife, Barcode Scanner, Shop Savvy or i-Nigma.

The phone’s camera is used to scan the codes, while the app translates the information and
quickly sends the consumer to a specific online destination featuring custom content in the form of videos, contests, coupons, commercials, etc.

**How to Make QR Codes Work For Your Business?**

As with all new technology and social media tools, it can be tempting to jump on the bandwagon before determining whether it will actually help you achieve your marketing goals. In order to make QR codes work for your business, consider the following steps:

**Step 1:** Clearly identify and state your marketing objectives. These could include boosting sales, increasing customer engagement or educating your consumers.

**Step 2:** Clearly define your target audience. It is important to make every connection count by providing the appropriate group of people with useful incentives and information.

**Step 3:** Determine where you’d like to direct consumers and develop custom content. From a landing page on your website, to a Facebook page or Twitter account, make sure you have dynamic and useful content to share.

**How to Integrate QR Codes into Your Business’s Marketing Plan?**

Whether your business has embraced recent technological advances or is still baffled by their ultimate benefits, there are a range of options for the use of QR codes in the pest management industry.

- **Marketing Materials:** Consider placing QR Codes on your marketing materials such as brochures, commercials, and fliers that direct users to your website where they can find pest prevention tips.

- **Business Cards:** Make your business card more effective by including a QR code that directs recipients to your website.

- **Discounts:** Offer a special promotion or discount on a pest service by displaying a coupon when the QR code is scanned. You can even use the QR codes to trigger the sending of a text or email message to the user with special coupons.

- **Social Media:** Create a QR Code that directs users to a landing page containing a ‘Like’ button linked to your Facebook, or lead them to your Twitter page for a quick follow.

The use of QR codes has already proven successful for some pest control companies. Take the case of an NPMA member in St. Louis who is using this very practical marketing tool on the back of their vehicles. When scanned, the QR code links directly to the company website. As a small business, they are challenged to find creative methods to get the most bang for their marketing buck. This strategy allows them to expand their personal engagement with potential customers and increase word of mouth promotion in a fun, interactive way.

**How to Create a QR Code for Your Business?**

Creating a QR code is a simple process. There are a number of free sites available to your business for generating QR codes; in fact, a quick Google search will yield several results. One popular site is Kaywa,
which creates QR codes that link to web pages, phone numbers and texts. Or, you can choose a more advanced code generator like Kerem Erkan, which allows users to customize the color and format of the codes.

There are a few ways to create a QR code when using a web site template. You can simply enter a URL, which will then be converted into a code, or you can enter specific text like an address, text message or phone number. Once the code is generated, you need to download it to your desktop and make sure to run a scan test for possible errors.

In order for QR codes to achieve maximum success for your business, it is important to realize that not every consumer is aware of this tool. It may be beneficial to add some copy to your web site or printed materials that explains the usage of QR codes.

Looking Toward the Future

As the Smartphone market continues to expand, so will QR technology. It is predicted that the next generation of barcodes will hold even more information and the content will be more effectively embedded in the code.

At a time when cutting-edge technology is changing the way we do business, there are many benefits for professionals who are willing to be early adopters to new innovations like the QR code. It is evident that marketing is a crucial part of building a successful business and trying new tactics can lead to unexpected growth.

We hope you enjoyed PestWorld 2011. Thank you to everyone that spun the PBC/Weisburger prize wheel.

Congratulations to our prize wheel winners:
Steven Dupuy, Fischer Environmental Services - Digital Camera
Dan Fleischer, Pestex Pest - iPod Touch
Bob Jones, Jones Termite and Pest Control - iPad
Bruce Carter, Carter Services – Flip Video Camera

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General Liability > Property > Inland Marine > Commercial Auto > Umbrella/Excess > Health Benefits
CALENDAR OF EVENTS

MARCH 8–10
PEST MANAGEMENT CANADA
Fairmont Waterfront
Vancouver, BC

FEBRUARY 9–10
SOUTHERN CONFERENCE 2012
Harrah's Hotel & Casino Tunica
Tunica, MS

FEBRUARY 9–11
WILDLIFE EXPO
Omni Hotel at CNN Center
Atlanta, GA

FEBRUARY 26–28
LEGISLATIVE DAY 2012
Renaissance Mayflower Hotel
Washington, DC

JANUARY 18–20
EASTERN CONFERENCE 2012
Bally's Atlantic City
Atlantic City, NJ

JANUARY 26–27
SOUTHWESTERN CONFERENCE 2012
Hard Rock Hotel & Casino
Albuquerque, NM

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