Message from the President  By Carl Braun

To all my fellow NSPCA members, and anyone else you can get to read this – a resounding HELLO from me. I hope everyone’s families survived the rough winter and spring floods. My thoughts and prayers are with all of you who were impacted by the bad weather.

Speaking of families, our NSPCA is one big family, and I am humbled to be elected to serve as your next president! Past-president Travis Lucas has done an outstanding job, picking up where his predecessor, Jeff Voelker left off. I must say, I have some big shoes to fill!

It was great to see many of you at our last conference in February, which, I believe was the most successful… EVER! Many thanks to all who worked behind the scenes to pull this off, and a special shout-out to Dr. Jody Green for all her hard work. Without her, this great success would not have been possible! I also want to thank Tim Creger and Trevor Johnson with NDA for their help, as well.

Many of us use our conference to re-certify, but it is more than that. It is a way for us to learn the newest and best from some of the brightest and most talented educators in our industry, and especially from each other. We have some great momentum, and the plan is to keep this rolling. There is no reason we can’t grow this to be one of the best conferences in the region!

The regular board and member meeting was held at the usual time. Discussion about this year’s conference included a report from Travis Lucas that the Planning Committee had decided to try out a Thursday-Friday format and it seems to be well received. In addition, there was further discussion about the future dates and days of the week to hold the UPM conference. With the retirement of UNL faculty the laboratory may be difficult to secure, but the group consensus was the Lab is a valuable addition and finding a way to have it again is worth the effort.

Andy Licht presented information on the current issues in front of our State Legislature. Pesticide Act updates, Container Recycling requirements and a bill Senator Walz had introduced that required nursing homes to report bed bugs to DHHS were among them. It is one of my objectives to bring a greater awareness of these issues to the board and our members. We need to be mindful of legislation being considered that could directly or indirectly impact our ability to conduct business and make a living.

Another one of my objectives is to grow our association membership by 7% by the end of the next conference. Invite a friend! Upon review of the minutes from past meetings, one of the recurring themes is growth. I need you all to please do one thing to help us with this. Please tell a colleague about NSPCA and the NPMA! If you know someone who used to be involved, but lost interest, invite them back. Know a newbie? Invite them!

We all benefit, professionally, from the efforts of NPMA in ways we’re not even aware of. And then there is the cornucopia of benefits available to members and all you have to do is look! Just a few of these benefits include programs to help you save money, information to help you grow your business, and professional development. There are so many opportunities to attend educational and fun events sponsored by the NPMA, not to mention the networking opportunities! Priceless!

Another item on my radar is the Ward Combs Scholarship fund (hint—this also a recruiting tool). Since I have been a member of the NSPCA, I have heard it talked about a few times, but we haven’t awarded a scholarship since 2010.

Let’s give some money away! Surely you have family in college who could benefit from this fund.

Lastly, as I mentioned, we have some great momentum with our conference and we are working to make it even better!

With spring, comes renewal. Revitalization. Change. There are some big changes forthcoming, so stay tuned!

In closing, remember the work we do affects the lives of so many people. The value of our service and the essential nature of our work helps people to live safer, healthier, and happier lives! Although we see the impact of our work daily, most of the positive outcome of good and proper pest management goes unrecognized. Take pride in your profession! Be a pro!

On behalf of Mr. Gregory Poppe, V.P., and the rest of the board, we look forward to serving you these next few years. May you all have a safe and profitable 2019! If not before, I’ll see you in February at the next UPMC.

Best wishes,

Carl Braun

P.S. – If you have any feedback, concerns, ideas, or just want to talk, please do not hesitate to contact me! carl@qpcomaha.com
(402)738-9164

Spring 2019
IT’S TIME TO TALK ABOUT THE BIRDS AND THE BEES AND IGRs.

**Comparison Chart**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Hydroprene (Gentrol®)</th>
<th>Pyriproxyfen</th>
<th>Novaluron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad spectrum control includes cockroaches, drain and fruit flies, and bed bugs</td>
<td>✔️</td>
<td></td>
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<tr>
<td>Translocates to reach pest harborsages</td>
<td>✔️</td>
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<tr>
<td>Increases gel bait consumption in adult female cockroaches and nymphs</td>
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<tr>
<td>Low odor and non-repellent</td>
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<tr>
<td>Long-lasting residual activity</td>
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<tr>
<td>Use in food and non-food areas</td>
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</tbody>
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**Kill Callbacks by Preventing Future Generations.**

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Go to ZOECON.com for the full story.
Do you offer bed bug treatments for libraries? It might be worth considering.

A library system in Lincoln, Nebraska inspects every book or item returned to all eight branches. The system found bed bugs in 2014 and a committee of experts came up with a plan to prevent a more widespread problem. Specific steps are in place and each library staff member is trained to know what to look for when books and items are returned.

According to the Lincoln Journal Star, librarians look for dead bugs, fecal stains and little black spots. Jody Green, an urban entomologist at University of Nebraska–Lincoln, is sometimes asked to act as a second set of eyes for confirming any uncertainties or answer questions.

When a bed bug or signs of bed bugs are discovered, the item is put in a zero-degree freezer for at least four days. Along with regular inspections, the aisles of each branch are patrolled by a trained detector dog sniffing for bed bugs every three months. The library will freeze an entire shelf of books if a detector dogs barks at a book.

Library patrons are alerted if the item is infected and asked to use caution when returning any other items they may have checked out.

— From Pest Management Professional, Author Danielle Pesta
Exposure Risks And Ineffectiveness Of Total Release Foggers (TRFs) Used For Cockroach Control In Residential Settings

In the United States alone, 82 million households used insecticides in 2012 and $2.65 billion were spent in the “home and garden sector”, representing 50% of all expenditures on insecticides. One of the most prominent pests targeted with insecticides is the German cockroach (Blattella germanica). There are many reasons for eliminating indoor cockroach infestations, but primary among them is the central role that cockroaches play as etiological agents in allergic disease and asthma. Allergens produced by German cockroaches can trigger allergies and asthma in sensitized individuals, and the National Cooperative Inner-City Asthma Study found that asthma morbidity was highest in children that experienced both a positive skin-test response and high exposure to cockroach allergens. The National Survey of Lead and Allergens in Housing, a nationwide survey conducted by the U.S. National Institute of Environmental Health Sciences (NIEHS) and the U.S. Department for Housing and Urban Development (HUD), found detectable levels of the cockroach allergen Bla g 1 in 63% of homes, with higher concentrations in high-rise apartments, urban settings, older homes, and low-income households. Moreover, because cockroaches move freely between waste and food, they can acquire, carry, and disseminate pathogenic bacteria, helminths, fungi, protozoa, and viruses in their digestive system. Thus, the persistence of cockroaches in homes poses significant health risks to humans.

Indoor cockroach infestations are often targeted with residual liquid or aerosol sprays that contain broad-spectrum insecticides, most commonly pyrethroids. However, high levels of resistance to pyrethroids and their repellency to cockroaches severely compromise the efficacy of most residual sprays. Moreover, these products can deposit considerable insecticide residues throughout the home. Environmental data collected by the U.S. Environmental Protection Agency (EPA) and HUD on a stratified, nationally representative sample of 1131 residences found extensive pesticide residues in homes. Despite the continual use of residual sprays, insecticides formulated as baits offer more effective and safer alternatives in cockroach interventions.

Because professional pest control interventions can be prohibitively expensive, consumer-based pesticide products are commonly used in do-it-yourself (DIY) pest control, especially in low-income homes. Total-release foggers (TRFs) are often deployed as spatial insecticides, designed to fill a room with fine particles of aerosolized insecticide. They are considered by consumers to be highly effective against all pests (as the common name “bug bomb” implies). TRFs generally contain toxicity category III (based on acute toxicity) active ingredients (pyrethrins and pyrethroids), various synergists meant to inhibit microsomal detoxification by insects, and aerosol propellants that are often flammable. These products are responsible for substantial acute and chronic health effects, explosions and fires, and persistent environmental contamination indoors. These effects were first characterized by a 2008 US Centers for Disease Control and Prevention (CDC) report that summarized 466 fogger exposures in eight States over a five-year period, documenting respiratory, gastrointestinal, neurological, ocular, dermatologic, and cardiovascular adverse symptoms. A similar summary from Texas, USA documented 2855 fogger exposures over an 8-year period. Despite these reports, the magnitude of health, economic, and environmental damage is poorly documented, and likely underestimated. Indeed, a follow-up report from the New York City Department of Health and Mental Hygiene, USA stated that the 2008 CDC report understated reported exposures. This follow-up report also showed that health effects are much more likely to occur from exposures to TRFs than from other pesticide formulations, and moderate or major health effects were more than twice as likely to occur from TRF exposures as from all pesticides, and seven times as likely as from rodenticides. While many of the fogger-associated illnesses and injuries result from inadvertent exposures during their deployment (leaving the premises too late, re-entering too soon, discharging too many foggers, failing to notify others), studies suggest that TRFs deposit large amounts of insecticides in areas easily accessible to humans, especially small children. The residual pyrethroids on household surfaces can exacerbate a number of chronic health conditions, although the health effects from chronic exposure are still under debate.

TRF products appear to contribute significantly to the disproportional pesticide exposure already documented for those living in affordable housing. The report from New York City’s Department of Health and Mental Hygiene contends that “the health risks associated with the use of foggers are not justified given their likely poor efficacy”. Recently, Jones and Bryant showed that over-the-counter TRFs were indeed ineffective at controlling bed bug infestations. Surprisingly however, there are no reports on the relative efficacy of modern TRF products against their primary target, the German cockroach. Therefore, a study was designed to assess the efficacy and exposure risks of TRFs in cockroach-infested homes.

Four different TRF products were used, representing several insecticide active ingredients and manufacturers: Hot Shot No-Mess Fogger2 with Odor Neutralizer, Hot Shot No-Mess Fogger3 with Odor Neutralizer, Raid Max Concentrated Deep Reach Foger, and Raid Fumigator. Five replicate homes were treated with each TRF product, one home in each of five apartment complexes.

Methods

Cockroach-infested homes were recruited into the study. Wipe samples were collected from various surfaces...
before TRFs were discharged, immediately after, and one month later to determine pesticide exposure risks in 20 homes (divided equally among four different TRF products). Each TRF was discharged in the kitchen following the product label instructions and EPA precautions. Simultaneously, cockroach populations were monitored in all homes to assess the efficacy of TRFs. In parallel, 10 homes were treated with gel baits (divided equally between two bait products), to compare TRFs to a more targeted, low-risk, do-it-yourself intervention strategy.

**TRFs are ineffective at reducing German cockroach infestations**

This study provides the first concurrent documentation of the risks associated with TRFs and the ineffectiveness of TRFs at controlling German cockroaches. All TRF products evaluated failed to reduce cockroach populations, providing the first conclusive in-home evidence that these products are inappropriate tools for abatement of German cockroach infestations. Results from population monitoring with traps provided insight into the ineffectiveness of the TRF intervention under “real world” conditions.

Extensive and pervasive pyrethroid resistance has evolved in German cockroach populations over the last 3 decades, rendering even residual spray formulations, which deliver pyrethroids directly to aggregation and foraging sites, ineffective in cockroach abatement.

**Results**

TRFs failed to reduce cockroach populations, whereas similarly priced gel baits caused significant declines in the cockroach populations. Use of TRFs resulted in significant pesticide deposits throughout the kitchen. Across all products, pesticides, and horizontal kitchen surfaces, pesticide residues following TRF discharge were 603-times (SEM ±184) higher than baseline, with a median increase of 85 times.

**Conclusions**

The high risks of pesticide exposure associated with TRFs combined with their ineffectiveness in controlling German cockroach infestations call into question their utility in the marketplace, especially because similarly priced and much safer bait products are highly effective in the indoor environment.
Apply For The NPMA Gives Award

The National Pest Management Association (NPMA) is calling for applications for the NPMA Gives Award.

As part of its mission, the NPMA’s Leadership Development Group presents the NPMA Gives Award to recognize NPMA member companies that have demonstrated leadership through their dedication and contribution to the good of the community.

Such contributions are demonstrated through carrying out and/or participating in community service projects. These projects may be industry related, such as complimentary pest control for at-risk environments, or non-industry related, such as walk/runs, raising funds for the community or blood drives.

EnviroPest won the 2018 award for donating more than $20,000 annually to local organizations, providing bed bug heat treatments to families who couldn’t afford them, and instating an Annual Serve Day when the company closes and takes staff off-site to volunteer at a local non-profit.

This year’s winning company will be recognized at the NPMA’s Academy 2019 in Phoenix, Ariz.

The deadline for submission is June 30, 2019. Qualifying entries must demonstrate a company’s consistent record of service over a minimum of a three-year period. View judging criteria and use this link to submit your application https://bit.ly/2VQvpXy.

The mission of the Leadership Development Group, an affiliate group of the NPMA, is to upgrade the professionalism of the pest management industry by promoting access and increased involvement in NPMA; identify, motivate and develop its emerging leaders; provide a networking opportunity; teach skills that are applicable to pest control businesses, personal development, the community and NPMA; and facilitate information exchange between generations of managers and owners.

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Pest management is often associated with controlling common household pests in residential settings. Depending on the type of infestation, pests can compromise a building’s structural stability and can even put property at risk for fire. However, the importance of the industry to the nation is much broader than controlling pests in the home. It plays a vital role in protecting our food supply and public health. In fact, public health officials attribute the quality of life we have today to three things: better pharmaceuticals and vaccines, better sanitation and better pest control.

PUBLIC HEALTH

• Pests contaminate food, as well as kitchen equipment and other surfaces. Pests also infest food items and stored products including grains and dry goods.
• Pests can spread diseases such as Zika virus, West Nile virus, Lyme disease, malaria, plague, Rocky Mountain spotted fever, hantavirus and encephalitis.
• Ninety-seven percent of allergists believe a pest-free home is an important step in preventing asthma and allergy symptoms.
• Seventy percent of homeowners with regular professional pest control service have it because it best protects their home and family.
• Innovations in pest management parallel an increase in life expectancy. In 1900, life expectancy was just 49 years and in 2012 life expectancy rose to 78.8 years.
• It would be difficult to find any segment of the food industry that could comply with federal sanitation and health regulations without an adequate pest management program.
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