

THE PEST DISPATCH

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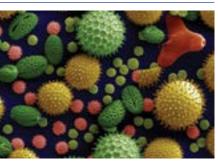
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PRESIDENT'S MESSAGE

Matt Lang, Belle City Pest Solutions, LLC • bellecitypestsolutions@gmail.com



Well, my first question is... I would like to know where the summer went so quickly and how it's possible that winter is approaching. This was the first year that we took our kids trick or treating in the snow one night, and the next day I was cutting up leaves with the lawnmower. After all, though, we do live in Wisconsin and the weather can be unpredictable.

Winter is one of my favorite times of year for pest control because of the challenge of finding and securing entry points where mice try and squeeze in. It's rewarding to the customer to show them our bag of tricks that are available on the market. Besides basic telescopic mirrors and high powered lumens flashlights, I do like the new compact camera that Rich Williams sold me on when we were in Hawaii for Pest World. The Ferret Plus is a wireless camera with a simple app for your phone that lets you view what's above in rafters or crawlspaces without the need to enter the area. It saves time and keeps techs off of ladders—which can save you, your insurance company, and your tech a headache!

At the end of the day, we all strive to provide our customers with the best top notch service as well as staying up with trends and innovative equipment.

(Continued on next page)





We here at the WPCA actually bring back many thoughts and ideas from events like this and often introduce them into PestCon in February. While PestCon might be smaller, we still put together an event that is packed full of education and yet offers plenty of time to network. Our vendor room is full of knowledge and representatives just wanting to connect and explain our industry products.

morning keynotes were exceptional and learning the Hawaiian culture was intriguing to me. The

educational sessions were packed full—from hearing about tropical bed bugs to baiting for cockroaches.

I personally look forward to seeing all of you at PestCon 2024 on February 13-14 in Wisconsin Dells. If you didn't register yet, please do so now for this always-excellent event. You will not be disappointed as you create relationships that last year after year.







NEW PRODUCT RELEASES & VENDOR NEWS

New Pro-Pest Monitor/Trap

JF Oakes, LLC has announced a new monitor/trap to their Ready to Use Pro-Pest® line. The Pro-Pest® Lookout monitor/trap has a highly effective, specially formulated, attractant already impregnated into the glue for roaches and common household crawling insects.

The new Pro-Pest® Lookout comes two traps per sheet, allowing flexibility of having two separate traps or one larger trap. Both configurations offer ramps on both ends, even after separating along the perforation.

Pro-Pest® Lookout monitor/traps are manufactured with heavy-duty card board and printed black interior.



Easy to follow directions and tracking chart are printed on the bottom of each trap. Pro-Pest Lookout monitor/traps are discreet and easily placed to pinpoint infestations. Private Labeling is available.

Contact your local distributor for pricing & availability or contact us at J. F. Oakes, LLC at 800-844-9296 or sales@jfoakes.com.

Gardner Releases Fruit Fly Control Guide



Gardner Products has digitally published a Guide to Fruit Fly Control with information and product details for both consumers and professionals.

Download your copy here: https://bit.ly/ FruitFlyGuide.

We highlight products released within the past six months for use by pest control professionals. Companies must be WPCA members or advertisers. Inclusion of a product should not be seen as an endorsement by WPCA. For full submission guidelines, or to submit a product for consideration, contact dana@barefoot-marketing.com.

Clarification on Fluorescent and LED Lamps for Insect Light Traps

In recent months, there has been a flurry of rumors surrounding the future of fluorescent lamps for insect light traps in the United States.

In response to the growing changes in the insect light trap industry, Gardner Manufacturing has developed an effective retrofit LED lamp option for customers who require LED lamps in their facilities. The LED lamp will be available in December 2023.

For those who still prefer the more cost-effective and high-performance fluorescent lamps, Gardner Manufacturing has taken proactive measures to secure a substantial supply of fluorescent lamps for at least the next three to four years.

Contact Jason Palleria at 888-558-1990 or jasonp@gardnermfg.com for a quote on your replacement lamps for 2024.



ARE YOU LOOKING AT ME? TIPS FOR DIFFERENTIATING YOUR PEST CONTROL COMPANY FROM THE COMPETITION

Provided by Pest Daily

Go ahead. Take five seconds and Google "pest control companies near me." How many results come up? Does your company appear on the first page? Or do you have to keep on scrolling to find it?

More importantly, though, will a prospective customer look much further than the first few names that pop up before choosing who to call? Oftentimes, the answer is no.

"There are tons of pest control companies out there these days," said Seth Garber, Pest Daily CEO and a leading industry consultant. "And that can make it really difficult to set your company apart, especially when everyone assumes you do the exact same thing as the next guy on the list."

The good news is there are plenty of ways to differentiate yourself from your competitors and, with a little time and effort, you'll be able to show prospective customers why you're the best choice for their pest control needs. Here are seven of Garber's tried-and-true strategies that will put you on the path for success.

Define what makes your company unique.
Get out a piece of paper or open up a new document on your computer. Next, spend a few minutes brainstorming what makes your pest control company special and identifying your unique value proposition. Essentially, Garber said, you're looking to clearly define what makes your company different from all the other pest control providers out there. Perhaps it's your expertise in eco-friendly solutions. Maybe it's your commitment to outstanding customer

service. Or it could be your rigorous technician training program. Once you've chosen your key differentiators, highlight them online and in any marketing materials you send out. "Don't be afraid to talk about your strengths," Garber said. "Showcasing your unique value is the first step in making your company stand out."

Give your customers what they want. Onesize-fits-all may work when you're shopping for t-shirts, but today's customers are looking for personalized solutions that take their individual needs into account. Giving your customers a tailormade experience starts the moment you arrive at their front door. Rather than launching into the same well-practiced spiel that you give to everyone, take the time to ask your customers questions and really listen to their answers. This will help you gain a deeper understanding of their specific problems and allow you to come up with customized solutions that are sure to be the perfect fit. Whether that means suggesting preventive maintenance programs, offering pet-friendly treatments, or using advanced technologies, the more personal your approach, the more positive the interaction will be. "People want to feel like their voices are being heard," Garber said. "If you can show them you truly care about solving their problem and you work hard to get the job done right, that customer is going to become a huge advocate for you."

3 Become a trusted source of information. Want to establish credibility with your customers and your prospects? Garber recommends sharing tips, insights, and DIY pest prevention methods

through social media posts, blog articles or monthly newsletters. This will make customers see you as more than just a pest control provider—they'll view you as an expert who's up on the latest industry trends and best practices. In short, you'll be their go-to resource for accurate pest-related information. And that's always a good thing.

Provide next-level customer service. When it comes to customer service, most people don't expect much and, oftentimes, that's exactly what they receive. However, this gives you a chance to show your customers that you're dedicated to providing them with top-notch service from start to finish. Spend a few minutes making conversation so you can get to know them on a more personal level. If you notice toys out on the lawn, ask them about their children. See a flag for a sports team on their porch? Find out how long they've been a fan. "When you can connect with your customers and have meaningful interactions with them, it goes a long way," Garber said. "It shows them that you see them as a person and not just another stop on their route." Then, when it's time to talk about the reason for your visit, use your active listening skills, answer questions, and confirm that you're on the same page with the customer before you start working. Then go out, tackle the problem and make sure to follow up a few days later to ensure the customer is happy and satisfied. "Your goal should always be to exceed expectations," Garber said. "This is what's going to keep that customer coming back time and time again and referring you to their friends and family."

Tap into the power of technology. Good old-fashioned customer service never gets old, but in today's digital world, embracing technology is critical if you want to stay competitive. Garber suggests leveraging digital platforms to streamline operations and enhance the customer experience. Use software to schedule appointments, send automated reminders and provide online payment options. By harnessing the power of technology to get these essential but time-consuming tasks off your plate, you'll be able to focus on what's most important—taking care of your customers and growing your business.

6 Create partnerships and collaborations. What if you had a steady, reliable group of local partners to send new business your way? Well, it can happen if you're willing to put in a little time

to cultivate relationships with real estate agents, property managers, construction-related businesses, and even other pest or wildlife control companies. all of which can all be great referral sources. Not sure how to meet these people? You've already taken a great step by joining the WPCA and NPMA. Joining networking groups and your local Chamber of Commerce are also valuable. Then, when you're at events, Garber advises you to do more than just hand out your business card. Share the unique value proposition that you defined in step one and explain how you'll take excellent care of any referrals they send your way. Let them know you'll be happy to pass along their name to your customers as well. Once your partner sees that you're living up to your promises, they'll probably be more than happy to continue sharing your name. It's a win-win for everyone.

Never stop learning. The pest control industry is constantly changing and evolving and it's important to keep up with what's going on so you don't get left behind. Garber suggests attending industry conferences (lilke WPCA's Midwest PestCon), participating in webinars, and being part of online groups with other pest control professionals. "When you invest in professional development for yourself and your team, you're showing that you're committed to going the extra mile for your customers," Garber said. "And at the end of the day, that's what's going to give you an edge over your competition."

The bottom line: When you're trying to differentiate yourself from all the other pest control companies out there, figuring out who you are and what you stand for is critical. Then, by providing a high level of service and striving to exceed your customers' expectations on every visit, you'll be positioning yourself as a trusted partner who is dedicated to keeping their home safe and pest free. Keep these tips in mind and you'll be miles ahead of your competition in no time. Good luck - you've got this!

Pest Daily, an innovative e-learning platform created just for pest and wildlife control professionals, was founded by industry veteran Seth Garber. A former owner/operator himself, Garber is now considered to be the top consultant in the industry and has developed unique, innovative methodologies to help pest control companies grow strategically and intentionally. To learn more, visit www.pestdaily.com.

NEW ADVANCED EPA PESTICIDE SEARCH PLATFORM

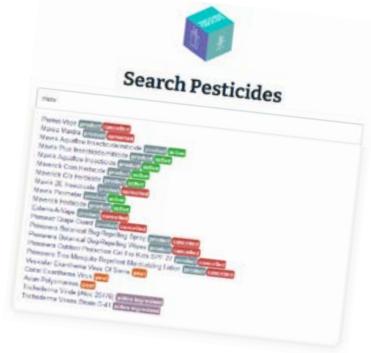
Siavash Taravati, PhD, Founder Pomerix Pest Solutions

The new platform at www.pomerix.com/pesticides allows users to search for more than 144,000 records of products, active ingredients, pests, and sites/commodities in a single search query.

I have been interested in nature, especially wildlife and insects since I was a little boy. Later on, I also developed a keen interest in coding when I became a teenager. When I went to college, I started learning web development from a good friend of mine and started wondering how can I use coding and web development in biology.

Obviously, there are many applications for web development in biology, but what inspired me to create a new pesticide search platform was that I had always found pesticide databases not user-friendly. Federal and state pesticide databases contain the most updated regulatory information; however, they are not always easy to navigate and it is difficult to explore products by their active





ingredients, target pests, and target sites or commodities.

What makes my pesticide search platform unique is its user-friendliness and ability to quickly search over 144k records of products, active ingredients, pests, and sites/commodities in a single search query. The result will show up as you type and, depending on your query, may include product names, active ingredients, pests, and sites/commodities.

If you click on any product name, you will end up on a very detailed product page containing the product's registration number, registration/cancellation dates, alternative names, the signal word, formulation, registrant's name and address, and a complete list of all the approved sites and pests. If you click on a non-product result, you will end up on a list of products matching your query. For example, if you search for "imidacloprid" and click on the Imidacloprid (a.i.) entry, you will be able to see all the registered products containing imidacloprid. Then you can filter the list by "Active only" or "All" products.

Pomerix's pesticide search platform is available to all PMPs at no charge, and I am planning to update the database at least once a year to reflect regulatory changes. The platform was just recently redesigned and updated in 2023.

ELM SEED BUG: A NEW PEST TO WATCH FOR IN WISCONSIN

PJ Liesch, Extension Entomologist UW Madison Insect Diagnostic Lab • pliesch@wisc.edu

Note: As of late 2023, elm seed bugs (ESB) have not yet been found in Wisconsin, but could show up in our area in the near future.

The elm seed bug (*Arocatus melanocephalus* | Hemiptera: Lygaeidae) is an invasive insect species native to parts of Europe. It was first detected in North America in 2012 in western Idaho and is now established in western parts of the continental US and Canada. In the eastern U.S., we haven't seen much of this insect yet.

It was technically spotted in the general Detroit area in 2015 and reports continue to pop up in southeastern Michigan. In the summer of 2023, I helped confirm the presence of the elm seed bug in the Twin Cities area of Minnesota. Thus, the ESB could make an appearance in Wisconsin in the coming years. Overall, elm seed bugs have habits similar to boxelder bugs and birch catkin bugs in that they feed on trees outdoors before invading structures later in the year.

The elm seed bug is associated with elm trees and is especially fond of feeding on the seeds. They have little overall impact on the health of the trees. Later in the year, adult elm seed bugs seek out sheltered overwintering spots. In natural settings, they would typically overwinter beneath the loose bark of trees or similar locations. However, they can readily invade homes and other structures in large numbers. Indoors, elm seed bugs are harmless to humans, but can be a general nuisance. Like brown marmorated stink bugs, elm seed bugs can also produce a pungent odor when crushed.

Because ESBs are a nuisance invader like boxelder bugs and multicolored Asian lady beetles, management is going to be very similar and should focus on preventing these insects from getting indoors, e.g., physical exclusion and exterior crack and crevice treatments.

Since we have not yet seen elm seed bugs in Wisconsin, having this insect on our radar and being able to recognize it are the most important things at the moment. Elm seed bugs are similar in body shape to boxelder bugs, but are slightly smaller at roughly ½ - ⅓ inch long. The adults are a dark brownish-black color with



rusty-colored patches behind the head. There is a blackish, triangular structure (scutellum) on the middle of the back, which sits within a rusty-colored, square-shaped patch. The edge of the abdomen is marked with a series of small, pale spots and the underside of the abdomen is a rusty, reddish color.

Pest management professionals who suspect they've found elm seed bugs in Wisconsin are encouraged to collect a sample and contact me at the UW Insect Diagnostic Lab to definitively confirm the identity of the specimens: insectlab.russell.wisc.edu.



Do you have an area of expertise that you'd like to share with other WPCA members? Write an article for our next issue of the Pest Dispatch!

We're looking for education, not self-promotion.

Length can vary. The deadline for our next issue is
February 15th. Contact dana@barefoot-marketing.com.

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RENEWAL SEASON IS UPON US

Lyncee Zuehls, Pesticide Program Manager, Wisconsin Department of Agriculture, Trade and Consumer Protection • lyncee.zuehls@wisconsin.gov

Renewal season is here at DATCP. By now you should have received your expiration notice to renew your Individual Commercial Applicators Licenses for 2024.

In the past few years we have observed some common mistakes that can slow down the process of us issuing out your licenses. To help make this process run smoother, review a few pointers we have for this renewal season:

- All renewals were sent with an instruction sheet.
 Please review that sheet as it is a step-by-step process on how to renew properly.
- If you are renewing online and are having issues logging in, try to answer the challenge questions that you set up. If that does not work, please reach out via email at datcppesticideinfo@wisconsin.gov

for the quickest response. Provide your first and last name and license number.

 If you are renewing by paper, you MUST send a paper application with your

payment. This application can be downloaded from website https://datcp.wi.gov/Documents2/ComPestAppLicense.pdf. You can can also email us to send you a digital copy or request us to mail you a paper copy. Failure to include an application with payment will then result in an incomplete letter and a delay in issuing your licenses.

- If your business gets audited at the beginning of the year, send your renewals as soon as possible.
 During the peak of renewal season it may take up to 30 business days for us to process paperwork.
- If you are a reciprocal applicator, please review your state's reciprocity comparisons to Wisconsin.
 We recently updated this and some categories may not be reciprocated anymore. You can find this information at https://datcp.wi.gov/Pages/ Licenses_Permits/Reciprocal.aspx

Additionally we have recently updated our websites! Here are the new URLs:

- Commercial applicators https://datcp.wi.gov/Pages/Licenses_Permits/ CommercialApplicator.aspx
- Reciprocal applicators https://datcp.wi.gov/Pages/Licenses_Permits/ Reciprocal.aspx
- Pesticide Businesses
 https://datcp.wi.gov/Pages/Licenses_Permits/Business.aspx
- FAQ Page https://datcp.wi.gov/Pages/ ApplicatorFrequentlyAskedQuestions.aspx

Questions? Contact DATCP's Pesticide Program by email at datcppesticideinfo@wisconsin.gov.





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ARTIFICIAL INTELLIGENCE + PEST MANAGEMENT: 15 WAYS PMPS CAN BENEFIT FROM AI



Dr. Janis Reed, BCE
Director of Product Development & Regulatory, Control Solutions Inc.

In the last several months, it's been nearly impossible to open any news site, magazine, YouTube video, social media platform, or business article and not see a reference to Artificial Intelligence (AI). Generally, when I think of AI, it's hard to not imagine a scary movie or the end of the world(!), but the question is: How can AI assist

business owners and more specifically, how can it help pest management professionals?

Here are a few ways AI can be beneficial to pest control companies, both large and small, to increase customer service, operate more efficiently and stay ahead of the competition. While some of the technology mentioned here is still being developed, implementing data collection, management and analytics can lay the groundwork for incorporating AI technology in the future.

1. Intelligent Pest Detection and Monitoring

Al can be integrated with remote monitoring systems and smart traps to provide real-time data on pest activity. By analyzing data from various sources such as images, sensors, and traps, Al algorithms can help detect the presence of pests, their population density, location, and patterns of activity. By extracting insights from this data, business owners can make data-driven decisions, such as identifying areas for improvement, optimizing resource and labor allocation, and targeting marketing efforts more effectively.

2. Image Recognition

Al can leverage computer vision technology to analyze images of pests, helping identify species and their life stages. This information can aid in the selection of appropriate products and techniques for management.

3. Early Warning Systems

Al can be used to develop early warning systems by integrating data from weather forecasts, historical pest data, and other relevant sources. By providing alerts and predictions, Al could help pest control companies stay ahead of the pest with proactive measures. This would potentially be the most powerful Al application since it would allow businesses to adequately staff their call centers, order product, and prepare their labor force in advance.

4. Interactive Training Modules

Al can be used to create virtual simulations that replicate real-life pest control scenarios. Virtual reality (VR) and augmented reality (AR) simulations, for example, can provide immersive and interactive training experiences. These applications would allow trainees to practice identifying pests, selecting the appropriate treatment methods, and implementing control strategies. These simulations provide a risk-free environment for trainees to learn and develop their skills. Trainees can access these modules at their own pace, allowing them to learn at a comfortable speed. Al algorithms can personalize the training experience based on the trainees' progress and offer tailored feedback to address areas for improvement.

continued

5. Fraud Detection and Security

Al algorithms can detect unusual patterns or anomalies in company data, helping pest control businesses to identify potentially fraudulent activities, cyber security threats, and data breaches more effectively. Al can continuously monitor systems and networks, which can enhance security measures, mitigate risks, protect confidential information, and preserve both customer and employee trust.

6. Customer Engagement and Communication

Al-powered chatbots and virtual assistants can enhance customer service for pest control companies. These Al systems can handle customer inquiries, provide information on pest control services, schedule appointments, and offer basic guidance for minor pest issues. This helps streamline customer interactions, improve response times, and free up human staff to focus on more complex tasks.

7. Intelligent Scheduling

Al algorithms can optimize the scheduling and dispatch of pest control technicians based on factors such as location, drive time, expertise/specialty, and availability. By considering these variables, Al can create efficient routes and schedules that reduce travel time and costs while maximizing the number of appointments that can be handled in a day.

8. Company Growth and Portfolio Optimization

Al can help businesses make more informed investment choices, identify potential opportunities, and manage risks effectively with its ability to analyze vast amounts of financial data, market statistics, and industry trends. Combining Al capabilities with human judgment and experience can result in more effective and successful financial investments.

9. Customized Pest Control Solutions

Al algorithms can analyze individual properties, recognize customer data, and consider factors like construction, climate, and surroundings to provide tailored pest control solutions. By understanding customers' purchase history and specific needs, including any sensitivities or preferences, Al can suggest tailored solutions, increasing overall effectiveness, customer satisfaction, and loyalty.

Al algorithms can optimize the scheduling and dispatch of pest control technicians based on factors such as location, drive time, expertise/specialty, and availability. By considering these variables, Al can create efficient routes and schedules that reduce travel time and costs while maximizing the number of appointments that can be handled in a day.

10. Market Research and Trends

Al can gather and analyze data from various sources, such as industry reports, online forums, social media, and customer reviews, to identify emerging trends in the pest control industry. By staying up to date with market dynamics, Al can recommend new and innovative products that align with customer preferences and provide a competitive advantage to the business.

11. Supplier and Product Recommendations

Al can evaluate different suppliers based on factors like price, quality, availability, and customer reviews. It can compare product specifications, pricing, and customer satisfaction data to recommend the most reliable and cost-effective suppliers and products. This helps the business make informed decisions about which products to source and from whom.

12. Inventory Management

Al can optimize inventory management by analyzing historical sales data, purchasing trends, and lead times. It can forecast demand for different pest control products, ensuring that the business maintains sufficient stock levels while minimizing excess inventory. In addition, Al can monitor the effectiveness of different products by analyzing feedback, reports, and testimonials from customers and technicians. By tracking the success rates of various products, Al can enable businesses to refine its product selection over time, ultimately streamlining operations and reducing costs.

13. Operational Efficiency

Al can automate routine administrative tasks, such as invoicing, data entry, inventory management, and reporting. By freeing up time for business owners and employees to focus on core operations and customer service, companies are able to increase productivity and reduce costs.

14. Workforce Diversity and Inclusivity

Al can help mitigate unconscious bias in the hiring process by analyzing applicant information objectively. By relying on data-driven insights, Al can ensure fair and equitable practices, allowing people to be evaluated and promoted based on their skills without being influenced by factors such as gender, race, or ethnicity. It can also assist with improving language translation and accessibility, helping to break down language barriers and support individuals with disabilities.

15. Regulatory Compliance

Al can help ensure compliance with relevant regulations and guidelines by providing

information on approved application products and their proper usage. This can help the familyowned business avoid any legal or regulatory issues.

Overall, AI technologies can significantly enhance the efficiency, accuracy, and effectiveness of pest control operations by providing advanced tools for detection, monitoring, management, and customer service allowing it to operate more efficiently and effectively in a competitive market.

Janis Reed completed a BS, MS and her Ph.D. in Entomology all at Texas A&M University, with a focus in Urban Entomology. Her research and interests include social insects, especially ants, as well as foraging and feeding preferences of insects. Janis has been a licensed structural pesticide applicator since 2000 in pest control, termite control, lawn and ornamental pest control, and weed control. In her role with Control Solutions, Inc., Janis oversees all operations, functions and activities related to projects as they move through the various stages of new product development up to and including launch.



PLANT POLLEN MAY BE AN IMPORTANT FOOD SOURCE FOR SOME MOSQUITOES IN THE U.S.



Paige Embry, reprinted with permission from Entomology Today

Food makes the mosquito. Young (larval) mosquitoes need both enough food and the right amounts of carbohydrates, proteins, amino acids, and fats to grow into adults, and some food provides what they need better than others. Although most of the 3,500 or so species of mosquitoes aren't a problem for humans, figuring out what

foods help the problematic ones reach adulthood is an important scientific pursuit.

A study published earlier this year in the *Journal* of Medical Entomology looks at both corn and pine pollen to see if they might be a hidden source of sustenance for two important mosquitoes in the United States: the southern house mosquito

(Culex guinguefasciatus), the vector for West Nile virus and a variety of other human pathogens, and the common malaria mosquito (Anopheles quadrimaculatus), the primary vector for malaria in the U.S. before it was eradicated.

Larval mosquitoes live in water but breathe air. Some must live at the surface and find their food there, while others can dive down and use more of the water column as a potential pantry. None of the larvae can chew, so they need food small enough to take in whole. Donald Yee, Ph.D., BCE, a professor at the University of Southern Mississippi (USM) and co-author of the study, says, "If you look at a close-up of a mosquito larva, most of them have big mustaches around their face, around their mouth. They'll whorl those in kind of a cyclical motion to create vortices in the water that draws material to them." And then they suck it up. Where they can feed

(Continued on next page)

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POLLEN, CONT.

in the water column impacts what food they can bring in with their vortex-inducing "mustaches."

One potential, and often abundant, food that has received little attention is pollen. Corn is one of the most widely grown crops in the world and produces



copious amounts of pollen at certain times of the year. Similarly, pine trees grow widely and produce large quantities of pollen. Corn pollen has been shown to be a viable food source for the two *Anopheles* species in Africa that are the primary vectors of malaria, so Yee's student Taka Nah Jelah decided to investigate whether pollen was a potential food source for important U.S. mosquitoes for her senior thesis. Taka is from Cameroon and says that,

as someone who grew up in a malaria-stricken country, it was important to her that she had "the opportunity to do research to add to the literature that could have potential importance in the control of mosquitoes."



For the experiment, each mosquito species was given

one of three diets: lactalbumin (an artificial diet used in mosquito rearing), pine pollen, or corn pollen. For each pollen type, the mosquito larvae received either low, medium, or high levels of pollen with a bit of strained ditch water to get the microbial life going. They also looked at the levels and stable isotopes of carbon and nitrogen (key nutrients) in both the pollen and the larvae. The researchers wanted to see how the different diets affected development time, body mass, and survival.

An. quadrimaculatus did poorly on both pollen diets, with 25 percent making it to adulthood on corn pollen and a meager 3 percent on pine. These results differed from what had been found for An. quadrimaculatus' African cousins. One reason for the difference may lie in where in the water column the Anopheles species feed. The U.S. species lives and feeds only at the surface. If the food sinks, it

is lost to them. And indeed, the pollen did sink in the experiment—and quickly. Both African species, however, can feed throughout the water column. It's a trait they share with *Cx. quinquefasciatus*, and the U.S. *Culex* survived well on both pollen types. Survival rates were high (approximately 69 percent) for all levels of the corn pollen diet, and they also did well on the medium and high levels of the pine pollen diet.

The authors say that the results of the study were unexpected—both that the Anopheles did poorly, unlike the African species, and that the *Culex* did so well. Consequently, they write, the association of *Culex* larvae in habitats near corn fields warrants further research, particularly in the west north central part of the country (e.g., Iowa, Kansas, Minnesota, Nebraska, North Dakota, South Dakota). Those states grow 59 percent of U.S. corn and often have high levels of West Nile virus. Yee says that the *Culex* doing so well on corn pollen "has some real ramifications for disease because we have a lot of agriculture in the U.S. ... and we grow a lot of corn, and often times that corn is associated with the kinds of habitats where *Culex* can develop."

Paige Embry is a freelance science writer based in Seattle and author of "Our Native Bees: North America's Endangered Pollinators and the Fight to Save Them." Website: www.paigeembry.com.

If you have a product that is integral to your business, but you don't see the company advertising in our newsletter, please let your rep know that they should be!

Encourage them to contact WPCA marketing specialist Dana Robb at dana@ barefoot-marketing.com or ask Dana to reach out to them directly.



LED technology offers clear energy savings over traditional lighting technologies. Coupled with our unique DYNAMIC OSCILLATION PULSE TECHNOLOGY™, a highly proprietary logarithm that creates fluctuations in the light beam that are imperceptible by people, but greatly influence and improve fly catch rates, VECTOTHOR LED is truly lighting the future for insect control. VECTOTHOR LED lamps are better for the environment and better for your pocket since they use up to 50% less energy than traditional lights. Each lamp has a three (3) years life-span (compared to one year for fluorescent lamps) and they contain no environmental pollutants such as lead or mercury.

Vectothor Falcon LED

Area coverage: 538 ft²

Light source: 15 W ASTRON ECO-LED UV-A™ LAMP
Weight: approx. 4.5 lb with light tubes fitted
Material: HDPE chassis with full metal front panel

Degree of protection: IP 20

Mounting position: Wall mounted Dimensions (LxWxD): 19.5" x 5.75" x 6.5"



Vectothor Osprey LED

Area coverage: 1076 ft²

Light source: 2 x 15 W ASTRON ECO-LED UV-A™ LAMPS

Material: Coated steel casing, cover/grid ABS plastic

Decree of protection: IP 20

Mounting position: Wall mounted

Dimensions (LxWxD): 18.5" x 14" x 4"



Vectothor Peregrine 3 LED

Area coverage: 1614 ft²

Light source: 3 x 15 W ASTRON ECO-LED UV-A™ LAMPS

Weight: approx. 13 lb with light tubes fitted

Material: Coated steel casing, cover/grid ABS plastic

Degree of protection: IP 20.

Mounting position: Wall mounted Dimensions (LxWxD): 20.5" x 14.5" x 6"



Vectothor Buzzard LED

Area coverage: 861 ft

Light source: 2 x 15 W ASTRON ECO-LED UV-A™ LAMPS

Weight: approx. 10 lb with light tubes fitted

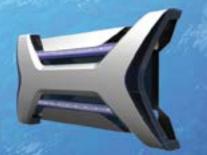
Material: Coated steel casing, cover/grid ABS plastic

Degree of protection: IP 20 (drip proof)

Mounting position: Wall or celling mounted

Dimensions (LxWxD): 21 25" x 12 25" x 4"

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Wisconsin Pest Control Association P.O. Box 26161 Milwaukee, WI 53226



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* If we somehow omitted your company's name, please let us know so we may correct the error.

THE PEST DISPATCH

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