FINDING THE BREEDING SOURCE OF SMALL FLIES
By Austin Frishman Page 4

DON’T CALL ME BUGMAN
By Grady Jones Page 8

FLIES
By Jeff Weier Page 16
Expo 2013 has come and gone. I would like to thank all the Members, Vendors, Speakers and Staff for making this the largest event ever. This event brought in Operators and Principals from Nevada, California, Arizona, and the State of Washington. Our membership grew more than ten percent from the previous year. Our Association now has a stronger voice in the State of Nevada.

The night before the expo, we held our 2nd Annual Meet and Greet in the Stardust Room of the Orleans Hotel and Casino. This event was sponsored by our Association and Co-Sponsored by CSI - Control Solutions Inc. and Envincio. This event gave our Principal Members the ability to mingle with fellow Principals, Vendors and Guest Speakers. We also used this event to formally show our appreciation to Dr. Austin Frischman for all his years and contributions to our industry. This relaxed event which overlooked the entire Las Vegas Strip from the Twenty First Floor of the Orleans Hotel and Casino, seemed to be enjoyed by all, as they munched on Dr. Frischman's cake which was elegantly decorated with Rubber Roaches and Icing simulating fecal deposits, naturally after we munched on Prime Rib and Turkey.

We opened the Expo with the Marine Corps Reserve Honor Guard and the Pledge of Allegiance. These brave souls also represented our Outreach Program, Marines Las Vegas-Toys for Tots. Through your generous donations we will be able to put many smiles on the faces of the Tots in our community.

Dr. Frischman’s three hour presentation covered information on Theory, Practical Approaches, Techniques, and Chemicals in his usual comical whimsical way. I believe that we all were, “Thinking Like Roaches”, because, at the end of the day, as we turned up the lights, I saw 377 people scattering out of the doors.

Our next enjoyable speaker, Jeffrey Weier from Sprague

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Finding the Breeding Source of Small Flies

The very name "small" fly indicates it can be any one of a number of species, all smaller than a house fly. Here are eight "meat and potato" tips to finding these hard to eliminate insects.

Drain Flies
Cover a suspected floor drain with a see through cup and check it the next morning. Leave a light in the room all night. If flies are emerging from the drain you will find some in the cup.

Drain Flies
Use a strong light and beam it into the bottom of the drain. Watch closely for about 15 seconds. If you see undulating movement in the water, you have fly larva. You need a strong light beam to cause the fly larvae to move.

Drain Flies, Phorid Flies, Dark Winged Fungus Gnats, Red Eyed Fruit Flies
Install three insect pesticide light traps overnight in a room. The next day, count how many flies you have in each trap. The trap with the most flies is closest to the fly breeding area.

Pull back peeling baseboards and examine carefully for small, wiggling fly larvae.

Red Eyed Fruit Flies
Gently kick open food trash cans. If a cluster of small flies fly up and most come back down to rest inside the container, you are probably dealing with red eyed fruit flies. Dark eyed flies rest on walls and do not come back to rest on the container you just kicked.

In general, look for organic debris washed by hoses into corners, elevator pits, cracks in the floor and under low-lying machinery. These all make excellent breeding areas which are not easily cleaned. More than one PMP has lost an account because they could not identify the fly. Even if they knew what it was, they could not find the breeding area.

Become an educated hunter. With this knowledge, you gain power and profit. If you do not have enough to think about, a new fruit fly, Drosophila suzuki, the spotted wing fruit fly has exploded on the U.S. scene. This species is spreading coast to coast over much of North America. It attacks fresh fruit in the fields.

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When the people who have to get the job done are the same involves their personnel in the decision making process. Unlike the Platoon Sergeant, business leadership today need to get their personnel to meet goals. They want to create an environment where they are part of the plan. It makes it easier to work as a team and it makes your goals become much more attainable. People will WANT to meet THEIR goals.

It used to be “shut up and do your job.” “Me boss – you not.” But the work force has changed. They are smarter and WANT to help set the goals. They want to be included in the decision making. They want to share the growth, glory and they want to PROFIT by it as well. They want the education and challenges.

So it is the leader’s job is to set up this environment so that the entire company can march together towards common shared goals.

If you do not know how to do this, you probably will be marching in place. If you do not know how to do this – get some help, some advice. Change your strategy and you will have much better results with lower turnover, happier employees and more growth and profit for you and your employees. It works.

Betta - Continued from page 3

Pest Solutions Inc., Once again, gave us an informative and concise presentation on stored product pests, which has been long overdue for our members. We give special thanks for Jeffrey’s continued support of our Association. We look forward to seeing him at our 2014 Expo.

I personally had the privilege of speaking on Nevada State Laws and Regulations. (everyone’s favorite subject) after the Hungry-Man Buffet that we had for lunch. I believe it went well since we didn’t hear any snoring or heads dropping on the tables.

Our Expo ended with final raffle drawings and a Q & A Panel discussion consisting of Dr. Frishchman, Jeffrey Weier and myself.

Each Member received (6) Six Continuing Education Credits for 2013, as well as valuable information, continental breakfast, buffet lunch, afternoon snacks and some even won prizes. The Africanized Honey Bee Class will be held on April 18, 2013 at the Orleans Hotel and Casino from 6-9pm.

Join the Nevada Pest Control Association and reap the rewards.
I know I’m a bugman ok? I accepted the title many years ago when a sweet old lady on the east side of Las Vegas proudly introduced me by that name to her neighbors, as they sat around her table cursing about the kids at the end of the street and the beat up old car in front of the mailbox. She would brag about how I got rid of her roaches, ants and mice and how nice my hair looked. While my exterminating abilities have certainly grown since then, my hair unfortunately has not.

Over the years, I watched my customers’ kids smile with excitement as they called me bugman – some of them are grown now and still call me that when they need treatments for their own houses. It is pretty humbling when one of their own kids squeals, “It’s the bugman!” with the same smile their parents once had.

It is an affectionate term for many of us in the business. We are bugmen, because we don’t just treat for bugs; we have lasting relationships with our customers. We are sometimes a therapist, sometimes a friend, sometimes a confidant and even sometimes family. But when push comes to shove we are always the bugman.

I’m good with it. The problem is sometimes we are too quick to settle for the old moniker. In this day and age, we are in fact much more than just a bugman. We are expected to know thousands of different species of pests, from insects to arachnids to rodents to birds. We have to have extensive knowledge of biology, behavior, life-cycles, and harborage areas as well as a treatment plan ranging from a massive list of pesticides, to exclusion techniques and sanitation requirements. When we arrive at an account, the customer has likely Googled the pest and researched it until they are ready to launch a nature show in their own back yard. We are expected to carry that same expertise around regarding thousands of various pests and have it on the tip of our tongue the moment we’re asked. Most customers don’t realize that beetles alone account for more than a third of all living animals. Heck, if you’re servicing a food processing plant, not knowing the difference between a Fungus Gnat and a Phorid fly could mean losing the account. We have to be pretty good at what we do.

So now we are professionals. This is not a job anymore and I am not a spray-jockey, walking around mindlessly shooting pesticide at anything that moves. We have attended countless hours of continuing education, read books and articles and received multiple certifications from various institutions. We are in fact, more regulated than the pharmaceutical industry, and more scrutinized than many aspects of the medical field.

So why then do we continue to be perceived as bugmen? I suspect there are many reasons, but chief among them has to be that we have not represented ourselves well. I don’t believe the general public has any idea of how educated their “bugman” is, and that has many negative consequences, not the least of which is the price we are able to demand for our services. If customers realized what was required in this day and age to be a successful exterminator, they would most likely agree that they are under-paying for the service they receive.

There is however another consequence that is even more threatening to our industry and that is the increasing regulation of pesticides and decreasing number of options that are available to PCO’s today. Most of this unfortunately, is due to two things and we are largely to blame for both.

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The first is what I mentioned before in how we have represented ourselves and our product to the public. The second is the considerable number of misapplications that continue to plague our reputation and tarnish our image. The public perception that "bugmen" don't care about public health or the environment, and that we just want to spray poison all over the planet willy-nilly must be changed. We have to change it.

If you are like most exterminators and you take great pride in your knowledge of entomology, pesticides and treatments, then I applaud you. If you are reading this publication then you likely are. The problem within our industry is the company that still considers itself a group of "bugmen." Just regular ole' workin' stiffs who believe that blue-collar men just kill stuff and ask questions later. They talk about the good old days when we could spray everything but children and consider "documentation" something you need to cross the Russian border.

The problem gets even more real when you understand how educated our legislative adversaries are becoming. Lobbyists and environmental groups are now professionals themselves and they continue to use our mistakes against us to gain ground. As I mentioned in a previous article, according to the EPA it is estimated that there are around 300,000 pesticide poisonings per year in the U.S. alone. Worldwide, there are about 26 million instances of non-fatal poisonings per year, 3 million of which are hospitalized, 750,000 become chronically ill, and 220,000 die. (Hart and Pimental, 2002). These numbers are being used against us to limit our ability to solve pest problems and ultimately to put us out of business.

Just Google pest control lawsuits and watch the crazy stuff that comes up. We have PCD's out there applying pesticides without the slightest consideration for how it will affect everyone including themselves.

How many of us have gone into an account and found a serious violation from another company? We all have a million stories, don't we? I've seen people spend thousands on a bedbug treatment when all they had were dermestid beetles from a pigeon infestation. I've seen dust applied all over kitchen utensils for german roaches and children's toys sprayed for scorpions. Rodenticides thrown in attics and gardens by a hired company, gopher baits left in trays in the yard, ZP tracking powders sprinkled around gondolas in markets and beds soaked from pesticide applications. It's no wonder the public often perceives us as uneducated, untrustworthy, and even dangerous.

I may be a bugman to the families whose homes I've treated over the years, but I take pride in being the best bugman I can be. I put in the time to learn my trade as I know so many of you have. We have to continue to encourage the rest of our industry to do the same. Hold your peers to a higher standard; contact them if you've come across a serious or dangerous misapplication and get their take on what happened. Trade information and together we can bring the perception of what we do to the level it should be. Ours is an important industry and we can't afford to lose any more ground to over-zealous activists who don't understand the consequences of their often well-meaning protests.

I'd rather be respectfully referred to as an expert, than affectionately called the spray guy. I am a professional; someone who can be trusted with a responsibility as serious as applying poison around areas we live and play. We are the experts and our industry protects human health and welfare. We protect families' homes, our businesses and even our food. What could be more important than that?

I'm not an overly sensitive guy; you can call me a lot of things. Just don't call me the bugman, k? Unless you're nine and I know your parents.

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"If a man is called to be a streetsweeper, he should sweep streets even as Michelangelo painted, or Beethoven composed music, or Shakespeare wrote poetry. He should sweep streets so well that all the hosts of heaven and earth will pause to say, here lived a great streetsweeper who did his job well."

-Martin Luther King Jr.
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FLIES

There are thousands of species of flies, but only a relatively few are considered pests. Flies are in the order Diptera, which also includes the mosquitoes. Although they are pests, mosquitoes are not generally considered part of the pest fly group. The flies that pest management professional deal with are called synanthropic flies. The definition of synanthropic is to be ecologically associated with humans. Pest management professional often use the more descriptive term, filth flies, to describe this group.

Flies are successful and difficult to control for a number of reasons. First and foremost, they are very mobile. As their name indicates, they fly. Being a strong flier allows them to find and exploit food sources. An example of their mobility is the house fly (Musca domestica), which can fly at speeds of 5 miles per hour without wind. Coupling this mobility with an acute sense of smell allows these flies to rapidly disperse in the environment and exploit food sources.

Second, filth flies have short development cycles, typically less than 14 days from egg to adult, and in some cases less than 7 days. Filth flies can also deposit large numbers of eggs when they do find a suitable food substrate. House flies can deposit over 100 eggs at a time and repeat this 5 or more times in their lifetime. With these capabilities it is no wonder that large numbers of flies can appear quickly in a client location.

Third, flies require small amounts of food. One dead mouse that weighs an ounce or two can produce dozens of flies. I am not aware of detailed studies but one teaspoon of fruit can produce dozens of drosophila. When I raise drosophila in my lab, one teaspoon of media can produce hundreds of flies over several generations.

Fourth, flies overwinter in the adult stage. This means that when the days warm up, adult flies are present and ready to lay eggs if circumstances are favorable. The significance of this is that, combined with the short development time, flies can appear quickly in a client’s location.

Fly Biology
Flies develop by complete metamorphosis, having an egg, larval and pupae stage. Filth flies deposit their eggs directly on the food source where they hatch in anywhere from 8 to 24 hours. The food source is always a moist material. Filth fly eggs and larvae do not survive on dry materials. (This is an important fact when you are doing a fly inspection, as well as a potential means of non-chemical control.) Flesh flies are even quicker, in that their eggs hatch within the female and she deposits larvae directly on the food source. This gives her larvae a head-start in devouring the food.

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Jeffrey A. Weier, BCD
Sprague Pest Solutions

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We have had a few examples of situations where certain "extra wording" from our insureds on contracts and other documents have caused claims that would easily be denied turn into litigation. Over the years, we have seen insureds being talked into writing something to help the realtor, mortgage company, customer or whomever to satisfy their concerns which has sometimes set the PMP for a claim down the road. Yes I know it is hard to believe that someone would not want to accept responsibility for their own actions and try to pass it on to someone else. It’s Ripley’s!

With that said, it is important for the PMP to realize that contracts and other documents are the lifeblood in defending a lawsuit. Great documentation means a great defense. Poor documentation means, well you get the picture.

Let me give you a couple examples of what I am talking about.

Example 1:

We have an insured doing a wildlife job in an attic. This specific insured has been doing wildlife work for years and after speaking with him about the claim, this guy knows his stuff. Good operator.

Well, this is up in the northeast area of the U.S. During the winter months, a pipe freezes and needless to say water came rushing out. Gravity is not a friend when it comes to water in the attic and there is a claim for a considerable amount of damage. So the question comes up, what does a busted water pipe in the attic have to do with wildlife services? Great question.

As stated earlier, this insured knows his stuff. He made it very clear and concise on the invoice/contract exactly what services he was going to provide. It was very itemized and seemed to follow normal peer industry standards for this type of wildlife service. Except one issue……

The insured decides to write on the invoice/contract “COMPLETE ATTIC RESTORATION.” Again he itemizes exactly what services are to be performed but needless to say the plaintiff is focused strictly on the phrase, “COMPLETE ATTIC RESTORATION.” The facts at this time clearly show the pipe and the insulation was not sufficient to cover and protect the pipe. The insulation was not altered due to a pest of wildlife issue or any other reason that our insured would be qualified to service. Bottom line is this is not a claim if “COMPLETE ATTIC RESTORATION” were not written on the documentation. We are vigorously defending and hope to have a positive outcome very soon.

Example 2:

Our insured has a house under a termite damage contract for a number of years. It is a retreat only contract and this PMP is like most operators -- knows his customers, works with them and wants to do the right thing should something down the road occur. Overall there is an issue surrounding the original treatment and/or annual inspections but overall a very defensible lawsuit.

The issue or allegations in the suit do not really surround the treatment or inspections but focus on certain wording that the insured put on his renewal inspection document.

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This wording meant one thing to the PMP and something totally different to the plaintiff. This is the main reason for the lawsuit.

The following was listed on the annual renewal inspection document supplied to the plaintiff:

“Our responsibility for repairing new termite damage will be governed by the terms and conditions as stated in the State Contract. There will be times and/or conditions under which we are not legally responsible to repair new damage, but we will do so because we are morally responsible. In these cases we will be the one to decide.”

I can assure you the last person to decide on something like this is the PMP/insured.

The plaintiff's main allegation in the lawsuit and what their case depended on was the wording “morally responsible.” Needless to say that makes for a very interesting defense on our part. Again this insured was trying to do the right thing, but presented it in the wrong way. After a considerable amount of discovery and due to the location of the lawsuit (very plaintiff-oriented area) it was best to NOT LET THE JUDGE OR JURY DECIDE. Bottom line is we got out of this for around 50% of the original demand.

With the two examples listed above, you can see how important it is to write ONLY what is needed on your documents. Usually we preach, let the contract speak for itself and avoid writing anything extra whenever possible. Of course this is determined on how strong your current contract is at the time of service. MAKE SURE YOUR CONTRACTS ARE UPDATED!

Before adding any wording, we stress to our insureds to call us for an outside opinion on whether this might increase exposure causing a claim or litigation. I get these calls almost every day and truly believe this reduces claims significantly. You should have someone that knows the exposures in this industry to contact as well. Find out who that person is. Good luck.

Andy McGinty is the Executive Vice President/Chief Operating Officer for LIPCA Insurance. He has handled thousands of pest control claims, loss control issues and speaks at pest control functions nationwide since 1991. You can reach him at 800-893-9887 ext 7016 or andy.mcginty@lipca.com.

After hatching the larvae (or maggots) burrow into the food source while they feed. Fly larvae have their spiracles on their posterior, or hind end, so that they can breathe while their head is buried in the moist food material. The structure of these spiracles is unique and can be used to identify the type of fly. The larvae usually molt three times during development. The larvae are the primary feeding stage.

When they are ready to pupate, the larvae crawl away from the food source. This behavior is protective because pupae in a food source may be consumed by other feeding larvae. Outdoors these migrating larvae will drop to the soil and burrow under the surface to pupate. Inside structures the larvae will crawl into crevices or stop when they reach a barrier such as a wall. This wandering behavior results in customers reporting the sudden appearance of large numbers of maggots crawling across a kitchen floor. Because they will often pupate when they reach a barrier, pupae are often found along a floor to wall junction or the base of cabinets.

Fly larvae do not form a cocoon when they pupate. The outer cuticle of the larva begins to harden and change to a dark brown color. This is called a puparium. After a few days the adult fly emerges from the puparium and the cycle begins again. The characteristic spiracle structures are preserved on the puparium even after the adult emerges so identification of the type of fly is possible from these stages.

Flies can be a challenging group. Future installments will delve into more detail of their unique biology and explore their weaknesses and control strategies.
A t one time or another we have all heard the saying, “The devil’s in the details.” This saying is especially true when it comes to reading and understanding pesticide labels. We all know that pesticides are to be used according to label directions and that the responsibility is steeped in federal and state law (Federal Insecticide Fungicide and Rodenticide Act; NRS/NAC Chapters 555). Most professional applicators are, for the most part, familiar with the instructions on products they commonly use, but unfortunately product labels change. Applicators are sometimes surprised by label changes when they learn how they affect the way they have “always sprayed before”.

A good example of ever-changing use requirements can be found on the labels of newer pyrethroids. In an effort to limit surface water runoff, these labels now limit the amount and type of outdoor surfaces where they can be applied, and caution against practices that may lead to residue runoff. Living in a desert does not excuse applicators from following these label use limitations, especially when precipitation (thunderstorm) is expected. One often overlooked restriction found on most selective broadleaf herbicide labels is not to irrigate turf within 48 hours after treatment. If the lawn is watered sooner than 48 hours after treatment, the NDA expects the action of the applicator to make assurances that irrigation will not occur. This can be easily done by giving written notification to the homeowner not to water their lawn until a specific date and time.

When investigating complaints involving specific label directions, the NDA looks for efforts made by the applicator to prevent potential problems such as giving written notification informing homeowners not to water their lawns until 48 hours after treatment. If the lawn is watered sooner than 48 hours after treatment and trees are damaged, the NDA may not find fault with the applicator if the homeowner was given written instructions not to water until a specific date and time but chose to ignore the instructions. In cases such as this, the actions of the homeowner are beyond the control of the applicator. The reasonable expectation is that if the homeowner received written instructions not to water, but chooses to do so anyway, any resulting damage is the fault of the homeowner not the applicator.

Pesticide labels are ever changing and are designed by manufacturers to optimize product efficacy while protecting humans, animals and the environment from potential harm. Understanding and interpreting them is the responsibility of the applicator. Before purchasing or using any pesticide, applicators must fully understand all label requirements and restrictions and know how they intend to follow ALL label directions, because the devil is truly in the details.

Mites in the Home

T he three main types of mites seen as pest problems around homes are clover mites (Byrobia sp.), spider mites (Tetranychus sp.) and bird mites ( Macronyssidae or Dermanyssidae). All of these mites are extremely small and require being mounted on slides for a positive identification. There are characters that can be seen with a good hand lens that can help narrow down the type of mite it is. As with any pest problem, treating mites requires one to first determine the source of the infestation.

Clover mites are one of the sure signs of spring to entomologists. These mites are bright red in color and have front legs much longer than the other legs (Fig. 1). Clover mites are plant feeders and are normally found in lawns. When these populations explode, they will crawl up exterior walls (most often on the south side) and enter homes through cracks and crevices, usually around doors and windows. Populations generally subside when the weather warms up, but may need to be treated until then. A treatment of the lawn ten to fifteen feet away from the home usually helps eliminate these mites.

Spider mites are also solely plant feeders and infest the home from indoor plants or outside plants against the house. High spider mite populations often create webbing on the infested plants. They are usually brown to green in color, sparsely clothed with long hairs and often have two spots of a different color on their body (Fig. 2).

Bird mites are the mites most often seen biting humans. This occurs when their populations explode and they leave the avian hosts or the nesting/roosting sites to search out better feeding grounds. These mites enter homes much like clover mites but may also enter from electrical outlets and ceiling lights with access from the attic where roosts and nests may occur. These mites are much more mobile than the other two mites discussed above. They are usually whitish to yellow, oval shaped with short hairs and have a more thickened area on the abdomen (Fig. 3). Although they can be seen with a naked eye, they are easily detected by sweeping “dust” onto a dark sheet of paper and watching for movement. Finding the source and treating or removing it is paramount to successful control.

Although some of these mites may bite humans none will survive long without their normal hosts. Dust mites are often blamed for numerous problems, but are rare to nonexistent in our desert environment, because they require higher humidity to develop.
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