

URBAN ENTOMOLOGY EXTENSION & RESEARCH

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During dinner a few weeks ago, our Siamese cat Polo was making mournful meows. I've written about Polo in the past, so you may know he is a vocal guy who likes to express his opinion. I asked my wife why Polo was meowing more than normal. She answered, "Because he's Polo." I didn't think any more about Polo and we let his meows become background noise to our meal.

When we have dinner, I usually feed the dog and the cat before we eat. That way we can eat and not be pestered by the various mammals in our house. But being rushed for time that night, I asked our 16 year old son, Corey, to feed the pets; and therein was the source and the reason for Polo's mournful moment.

After finishing our dinner, I walked into the kitchen. Polo raced ahead of me, jumped up to his food bowl, turned around and gave me an emphatic MEEEEOOOWWW. As I said, "What is your problem," I look into his bowl and saw his problem. Polo's dinner consisted of a little dry cat food with a big honking dollop of green chilies. In case you don't know, cats are carnivores. Cats don't do green chilies.

In our refrigerator, the cat food and the dog food tend to reside in the same area. A few nights before, my wife had used a partial can of green chilies, and returned the cat food sized container to the area of the refrigerator where Polo's food normally sits. Not being entirely engaged in the pet feeding process, Corey absent mindedly grabbed the cat-food-like can, gave Polo a nice plop of green chilies, and then moved on to the important things in his life like text messaging his girlfriend and playing guitar.

I called Corey to the scene. "Corey," I said, "didn't you notice you were giving the cat green chili peppers for dinner?" "Uh, not really," he replied.

If Corey and I were in a pest control business, we would have had a problem. As the owner, I was too busy to do my regular job and I

delegated my responsibilities to my technician without proper oversight. Then when my customer, Polo, initially complained, I did not take the time I needed to find out if something was really wrong. It wasn't until my customer was really upset that I took the time to address his concerns and find a solution to the problem.

In the September issue of Pest Control Technology Magazine, the cover story is titled, "Good Fortune" by Lisa McKenna. The article provides eight essential tips for ensuring the success of your business. The first tip is treating customers the way they want to be treated. This is the golden rule philosophy. Not only is it the right thing to do, it can help your company's bottom line. But no one is perfect and poor service can happen to the best of companies. And you don't have to be in private business to have customers. Even a college professor and Extension entomologist has customers: students, the public, you. You can even look at your spouse and family members as customers.

If you get a chance to read the "Good Fortune" article, it may refresh your views on good customer service, in business and in life. We all make green chili mistakes. The key lesson is to listen to

our customer, make corrections when necessary, and avoid a green chili mistake from repeating.

Feeling The Bite From Fleas

I don't know the reason, but fleas appear to be back on the radar screen for many pest control companies in the Palmetto State. Our calls at Clemson have increased from both pest professionals and homeowners battling fleas.

In South Carolina we have records of 26 different species of fleas. However, the most common species, by far, is the cat flea. Cat fleas are common on our furry pets and the wildlife that visits yards and homes. Adult cat fleas are wingless, black insects about 1/16th of an inch long. Fleas mate on the host and both sexes bite. After her first blood-meal, a female can start laying eggs within 36 to 48 hours and may produce eggs for more than three months, averaging up to 24 eggs per day. Flea eggs are whitish, round and readily fall to the floor or ground from the host. After about 2 - 4 days, the eggs hatch producing small, whitish, worm-like larvae. The adults also consume a lot of blood, in relation to their size, while the host is resting. They defecate partially digested blood that also falls from the host and serves as food for the larvae. The dried blood is often referred to as "flea dirt". The larvae avoid light, burrowing into carpets, cracks, leaf litter or other protected places near where the hosts rests. Thus fleas tend

to be clumped in distribution indoors and outdoors, not uniformly distributed. This is why treatments should be targeted spot treatments, not widespread broadcast sprays. Also, when you treat carpets or outdoor areas, remember it is mainly the worm-like larvae you are trying to kill, not the jumping adults.

Generally, fleas are in the larval form for a few weeks before spinning a silken cocoon, in which they develop into adults. This stage, called the pupa, is quite impermeable to insecticides. Fleas can stay in this stage from a few days to 6 months. A signal for a flea to emerge from their cocoon is some physical disturbance and the presence of warm-blooded animals. This is why vacationers often return to find their homes overrun by fleas. The adult fleas remain in their cocoons when the house is quiet, emerging hungrily all at once when the family returns. The ability of fleas to stay in the cocoon so long is one of the reasons an integrated control program is needed.

If pets are present, make sure they are being treated. Check with a veterinarian for the best treatment options. In general, the pill or topical treatments available for pets are quite effective. If the product being used does not seem to work well, have your client talk to their veterinarian about changing to a different product. It is very important that pet owners follow label direction for the pet treatments for the treatment to

remain effective. If your client does not have a pet, but you and they are seeing fleas, make sure other animals are not being attracted to or living around the house such as neighborhood cats, feral cats, squirrels, raccoons, opossums, mice etc. Try to reduce any food, such as bird seed, that may attract wild animals to the yard and house. If a dead animal has been found near the structure make sure any nesting areas have been cleaned and removed to eliminate residual flea larvae and pupae. Also, make sure young animals have not been overlooked and left behind during vertebrate pest removal.

Indoors, before any insecticides are sprayed, pet bedding, if present, should be washed and the floors, carpet, furniture and any other areas the pet has access should be thoroughly vacuumed. Research at Virginia Tech found that vacuuming carpets with the beater-bar can remove between 15% to 27% of flea larvae and 32% to 60% of flea eggs. Vacuuming also stimulates fleas to leave their protective pupal cases and may help to straighten long carpet fibers, enabling insecticides to penetrate more effectively. After cleaning during an initial treatment, your client may want to discard the vacuum bag as fleas can, on occasion, crawl back out of the vacuum.

If fleas are indoors, there are a number of insecticide products that can be applied. Remove other people and pets before treating. Flea bombs

are perhaps the easiest method but also the least efficient in that they release insecticide all over the room, not just on the floor or furniture. Targeted direct spray treatments to the areas where the pets rest are more work but probably more effective. Most of the common professional-use pyrethroid-based insecticides are effective. In addition, it is a good idea to add an insect growth regulator (IGR), such as Precor (methoprene) to the spray. Insect growth regulations do not kill fleas immediately, but they can keep immature fleas from developing into adults. When using a spray labeled for fleas indoors, check the label for special warnings and only use the product according to the directions.

The outdoor treatment is the final step. As indoors, insecticide sprays concentrated on areas where the pets spend most of their time and enter the house are most effective. Some common outdoor insecticide sprays for fleas include the insecticides already mentioned, however other insecticide classes, such as carbaryl, in Sevin, can also be used. Pyriproxyfen, in Archer, is another IGR that is designed to be effective in outdoor environments, and is a good addition to a targeted outdoor spray. Again, try to only spray in key areas where pets or wild animals may come near the house. It is usually not practical, nor advisable to treat an entire yard.

With many flea problems, it is often necessary to repeat

the treatment steps after two to three weeks before good control is obtained. This is due to the fact that fleas in the egg or pupal stage are sometimes not killed by the first application of insecticides. You can get good flea control, but it will take cooperation from your client and probably multiple service calls. If a problem persists for several months, try to collect fleas to get them identified and don't underestimate the places wild animals, especially mice, rats and squirrels, can go in a structure and contribute to a flea infestation.

For a very detailed review of fleas and flea control, consider reading "Ectoparasites, Part One: Fleas and Lice", written by Dr. Nancy Hinkle, in the Mallis Handbook of Pest Control, ninth edition.

Feeling The Bite From Fall Thrips

In 2005, we received many specimens and complaints about biting thrips. Once again, thrips are back in large numbers in some areas of the state. Thrips, in the insect order Thysanoptera, are generally very small, only a 1/16th of an inch, with a brown to black body. Many have feather-like wings and rasping-sucking mouthparts. It is the rasping that hurts, giving the sensation of a bite from a black fly. The thrips biting most folks are probably grass thrips. Another interesting fact about thrips is that both the singular and plural form of the word thrips

is thrips: one thrips, many thrips.

At times, when thrips numbers are high, they will move from plants to people, possibly being attracted to moisture (sweat). Grass thrips generally need moist, healthy grass to survive. Even during times of drought, grass around athletic facilities tends to be watered and many of our complaint calls about being bitten by thrips has been from student athletes and individuals attending athletic events.

For people being bitten, repellent sprays such as OFF containing DEET or the relatively new Cutter product containing Picaridin should provide some relief as long as the individuals are not sensitive to repellents. Thrips also seem to like light colored clothing, so wearing darker colors may help reduce the numbers biting individuals.

For control of thrips in an area, try to determine the source of the infestation. In most cases, infestations will be located in outdoor areas. Collect some if possible for proper identification. Check plants, vegetables, flowers, fruit trees and grass. Especially look at vegetation that is near swimming pools or water features. Inspect plants closely at the base of leaves where these small insects like to feed.

If possible, reduce excessive moisture, such as too much mulch or excessive irrigation that may contribute to the growth of large populations. If they are getting indoors, consider

using a vacuum to remove them. Sometimes thrips are brought inside from freshly laundered clothes hung out to dry. If thrips are on clothes, using a dryer can kill them. On outdoor plants, there are a number of turf and ornamental insecticides that will have thrips listed on the label. If you do an outdoor spray for thrips, make sure the site/plant is also on the label.

You should check with your local Regulatory Specialist, but you probably need a category 3 license in SC to do many aspects of thrips control in turf and ornamental areas. In addition, current thrips problems may not last long if you get rain or cool weather in your area.

While they are a nuisance and their bites are irritating, they are not dangerous and they do not transmit diseases to people. A temporary situation of biting thrips could be an opportunity for you to provide service not by spraying but by educating your customers.

November MTT

The next Master Termite Technician class will be held at the Sandhill Research and Education Center in Columbia, SC on November 6 – 7. There are still a few slots available for participants. We normally have a full class, so if you are interested in the MTT, contact Jackie Ellis soon to register (jells@clermson.edu or 864-656-5048).

January WIR

We are planning to hold a Wood Infestation Report Training Program in the Charleston area on Tuesday, January, 13, 2009. At this time, we do not have a meeting place secured. When we get a site to hold the workshop, we will send, detailed registration materials. The cost of the all-day training will be \$100. Lunch will be provided and the class will be limited to 40 participants. If you live in the Charleston area and are interested in this training, mark your calendar. We expect to have our second WIR training in August or September of 2009 in Columbia. Contact Jackie Ellis for more information.