

## PEST EVALUATION AND SUPPRESSION TECHNIQUES

# P.E.S.T. NEWSLETTER

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### Comments

I am so bummed again!! We missed April Fools' Day by three days!! I have always wanted to have a spoof edition (actually did some a few years ago), but I'll have to stick with what we have going on – for real!

Huumm! Actually, I think Mother Nature is having her own version of April Fools' Day, though it seems to be continuing for more than a day! As I stated in my last newsletter, I made it down to Houston, Texas for spring break (not much of a break as I had to spray my mom's lawn for chick weed, fertilize it, repair the irrigation system, and tend to other repairs). The weather was beautiful! We had 80s every day and 50s and 60s at night! The Luna Moth adults were flying and the May/June beetles were common under the night lights. However, coming back was a major shock as Ohio still was in the grips of winter weather with cold temps sprinkled in with some rain, slush and snow flurries! Bummer!



Luna moth adult male.

Even so, I'm seeing some signs of spring with red maples showing color, Forsythia flower buds peaking out with some yellow and a few daffodils blooming here and there. Driving back, Louisville was about the last place where I saw callery pears in full bloom, so this will likely start in Ohio soon....(OK, I hope!).

I have had lots of kind comments on the new look of the *P.E.S.T.* with the color PDF version. And, more importantly, many of you gave me some good updates of what you are seeing and experiencing! That makes writing the *P.E.S.T.* much easier!!

We'll keep the password as: **rainy**

The BugDoc (Dave Shetlar)

### What Was That?

#### Boxelder Bugs Show Up!!

With all the talk about the marmorated stink bug in the last *P.E.S.T.*, I got no comments on them, but several folks sent in pictures and specimens of the boxelder bug adults! Apparently, they overwintered well and are showing up inside homes or on the outside walls. Even though they are brightly colored, they are harmless. However, when

they cluster on the sides of homes and buildings, they often leave behind dark poop stains which can be difficult to wash off unless you use a power washer!



Boxelder bug adult.

There is little that can be done about these nuisance pests other than the normal exclusion techniques I talked about in the last newsletter (e.g., sealing window sashes and frames, fixing door sweeps and seals, repairing attic vents, etc.). While there are some wall sprays that you can get (online, the most common product contains cypermethrin which doesn't require a license to purchase), most only kill the bugs for a few days before the residual action is worn off.

Some factsheets suggest locating boxelder trees and cutting them down because the nymphs prefer to feed and develop on the developing seeds. However, we are finding that this insect feeds on more than just boxelder! Boxelder is related to maples and the nymphs apparently feed on maple seeds AND ash seeds! The ashes will likely be taken out by the borer, but I don't think we want to tell everyone to remove all the maples in their yard! More importantly, the bugs are quite migratory and the trees upon which they are developing can be several blocks away!

#### Clover Mites Also Invade Homes!

I should make a mental note that if it is warm enough to bring out the skunks, raccoons and opossums, its warm enough for clover mites to be active! I don't know if you noticed the carnage over the last couple of weeks, but it was obvious that the furry beasties were out and getting biffed by cars and trucks. We also got several home owner inquiries about "tiny specks walking about" on interior walls of homes. One person even commented that the little dots made a yellow-green stain when crushed!



Cluster of clover mites on wall.

Clover mites are a true cool-season mite species which is usually active in October into early December, but is most noticed from late March into early June.

I'm beginning to wonder why these mites are even

called clover mites as they usually feed on grasses (the lawn), but another common biotype feeds on honeysuckle! I think that the turf-feeding biotype is the most common home invader, but I wonder about the honeysuckle biotype, especially where the honeysuckle hedge-type plants are used next to the home foundation.

In any case, clover mites have the nasty habit of wandering away from their food plants in search of permanent structures (probably tree trunks and stones in a natural environment) on which to lay eggs and molt. When turf is grown up to the foundation of a building, the mites commonly will enter the basement or first floor. I've seen pictures of thousands of the tiny mites and egg masses covering basement walls!!

Like all invaders, they don't always find their way back outside once they have finished molting or laying eggs. Since they are filled with chlorophyll, when squashed, they leave a "grass stain" which can be difficult to remove without resorting to bleach!

Our normal recommendation is to remove turf from the foundation of a building out for 18 to 24-inches. A gravel or mulched area can cover the soil. If this doesn't solve the issue, there are a couple of insecticides and miticides that can kill clover mites. Bifenthrin (Talstar), deltamethrin (Deltaguard) and lambda-cyhalothrin (Scimitar) have clover mite on their labels. As far as I can tell, there are no currently registered miticides that have clover mite, or turf on their labels!! Of course, don't use these products inside a home or building.

### Termites or Ants..Swarming?

I can't believe it, but those few warm days we had some time ago started swarming of BOTH termites and carpenter ants! I get nervous when this happens because many home owners think that ants swarming is okay, but termites will cost lots of money! Carpenter ants, if they are swarming in a house, can cause significant damage also!

So, how do you tell which one you have? To an entomologist, "it's obvious"! But, to the average person, there are just a bunch of "bugs" swarming for a while! First, the termite swarmer are all the same size, they have black to



Termite swarmer emerging from window sill.

dark brown bodies, and silvery-white wings. If you look more closely, the antennae are thread-like, consisting of a string of little beads. The body has the thorax (where the legs and wings attach) broadly joined to the abdomen. Carpenter ant swarms are usually of two distinct sizes, large females that can be nearly an inch long (including the wings) and males that are rarely more than a half-inch long. The bodies are black to dark brown, but the wings usually

have a rust color to the bases and they don't appear as silvery-white. If you get a close look, the ant antennae are distinctly elbowed, they have one long segment, a crook, then several smaller segments. The thorax is robust and joined to the abdomen by a narrow pedicel (waist).

Most of the recent termite swarms have emerged inside homes and this is an obvious cause for concern as it suggests that the termites have gained access to the home's wooden structure! When termites swarm outside, they may be in the house, but they are often just in nearby trees, landscape timbers, mulch and other accumulations of cellulose-containing materials (even lawn thatch!).



Carpenter male and female swarmer.

Carpenter ants don't eat wood, but make galleries in wood to rear their brood. Their presence also suggests that there is a moisture problem as these ants can't survive very far from a water source.

Whether termites or carpenter ants, neither is something that the average home owner can deal with without professional help. Yes, I know that there are over-the-counter products for termite control and carpenter ant control, but most of these are useless and will simply provide a false sense of security! Most pest control professionals will inspect for free, but be wary of the evidence they show you. If they disappear for a while and come back with a jar of termites or ants, have them show you exactly where they got the specimens. Termites or ants found in mulch or nearby firewood does not mean that they are actually in the house. I always ask for evidence or proof that they are in the structure. If they are, it should not be difficult to find their evidence!

Also, you don't owe the PMP anything for their time! They will likely give you an estimate for their services, but get two more estimates before you decide! You'll be surprised at how fast the estimates drop when everyone knows that there are several bidders!

### Crystal Ball

#### White Pine Weevil

I feel like I'm a broken record when talking about the white pine weevil, but this pest remains as one of the major pests of Ohio white pine and spruce trees! This pest causes problems in both established residential conifers as well as in production settings, especially Christmas tree plantations. Unfortunately, the control approaches (and products that can be used) are quite different for these two sites!

**Residential Sites:** In home and commercial facility landscapes, this pest is most apparent when the trees are in

the six to 15-foot size. The dead tops are obviously visible and young trees develop multiple leaders which result in bushy tops that are not the desired cone shape one normally associates with conifers. I see damage from this weevil in larger trees, but most seem to escape notice and the multiple leader tops are also not as noticeable.

As far as I'm concerned, there are three basic approaches to control this weevil in landscape trees: cultural pruning and retraining of a leader, preventive (prophylactic) insecticides, or systemic insecticides. By far, the simplest method is to use a soil drench of a systemic insecticide. We have a pretty good data base on imidacloprid (Merit or Bayer Advanced Tree & Shrub Insecticide, as well as some generics by Bonide and Fertilome) when used as a fall drench (late October into mid-November) or early spring drench (NOW!). Spring drenches need to be done in the first week or two of April to ensure that the insecticides get to the leader in time to affect the feeding adults and hatching larvae.

The idea behind the prophylactic treatments is to put a protective layer of insecticide on the leader and upper branches where the adult female feeds and chews holes for inserting eggs. Unfortunately, most of the over-the-counter products are not well designed for this purpose (they wash off easily in rains) and weekly applications may be needed from mid-April through the first week of May! Sprays containing bifenthrin and/or deltamethrin should be effective. However, there are specific formulations of permethrin (Astro) and bifenthrin (Onyx) that have special staying power and one or two sprays will get the trees through the egg-laying season! Neither of these special formulations are "restricted use" pesticides which means that they can be sold to a home owner! I notice that the Astro label has a note that it can't be used by anyone without a state pesticide license, and I'm not sure how this is interpreted by ODA. Onyx states that it can be used only by commercial applicators which has no federal or state meaning!! Because of these statements, I normally recommend home owners to use the imidacloprid drench or hire a professional applicator to use the Astro or Onyx.

To accomplish the pruning, the top leader needs to be removed in late May into the first week of June to catch the larvae before they burrow down below the first whorl. Pull up a lateral branch and train it as a new leader. Grind up, put in the trash or burn the pruned out leader or the larvae may complete their development and make more adults for next year!!

**Nurseries & Christmas Tree Sites:** Drenches are often considered too difficult to accomplish when you have hundreds of susceptible trees! Therefore, spring applications of systemic or prophylactic insecticides are preferred. Fortunately, on these non-residential sites, additional insecticides are available. The powerful systemic insecticide, dimethoate, can be sprayed to the top third of susceptible trees in early to mid-April and repeated

in three to four weeks (in heavily infested areas). Dimilin can also be used in this manner and is significantly less toxic to the applicator. Of course, imidacloprid products are available, but drenches are much more effective than sprays. For prophylactic treatments, the tops of the trees can be treated (spray to drip) with Dursban (or chlorpyrifos) or OnyxPro with two applications being necessary as mentioned above.

### **Tent Cats to Hatch!**

One newsletter subscriber from Kentucky sent me a note that he'd seen the tent caterpillars hatching about a week ago and when I looked at the Ohio phenology calendar and central Ohio is on the cusp of accumulating enough degree-days to have them hatch here also. Over the last couple of seasons, we have had more of the forest tent caterpillars (that don't make a nest in the crotches of branches) than eastern tent caterpillars that make nests.



Eastern (left) and forest (right) tent caterpillars.

Last year, we had so many forest tent cats, many thought we were heavily infested with gypsy moth larvae! Both tent cats and gypsy moth cats are dark, but the eastern tent cats have a distinctive white stripe down the middle of the back while the forest tent cats have a series of keyhole-shaped white spots. Gypsy moth larvae have a series of blue tubercles followed by a series of red tubercles.

While all the early season caterpillars are easy to kill with various insecticide sprays, they are not affected by the drenches of some of the common systemic insecticides, especially imidacloprid (Merit)! I'm hearing from industry folks that soil injections of Lepitech (contains acephate/Orthene) is proving to be quite effective at controlling both tent cats as well as the gypsy moth. This product should be applied when the larvae are just beginning to feed!

### **Rose Midge Treatments!**

I noticed last week that a lot of roses are beginning to show some significant elongation of their leaf buds! When these buds get to be about an inch long, it is time to "install" a systemic insecticide to counteract the rose midge! We have seen successes and failures of imidacloprid products and I think that much of this is due to applications being made too late! It appears that a better choice is to use dinotefuran (Safari) which is taken up by the plants very rapidly, and being water soluble, it seems to get into the outer bud tissues where the midge larvae rasp away their food.

Until last year, you could only get Safari in large containers (it's really expensive) designed for professional applicators. However, Green Light has produced an

over-the-counter product that contains the Safari and this is made in sizes more appropriate for hobby rose enthusiasts. What is even more important is that the label allows multiple applications in a season which is often necessary to manage this major pest of rose!

Now is the time to get the dinotefuran into the plants to knock out the first generation of rose midge larvae. If you knock out the first generation and there are no untreated roses nearby, you may not need to make any further treatments this season! However, if this is not the case, you'll probably have to make a second application AFTER the first flush of blooms has occurred.

### Ground Bees Soon to Annoy!

I know that these little annoyances will be out before the next *P.E.S.T.*! I saw some at a rest stop in Kentucky last week, so they will start in Ohio soon! These little solitary bees are usually dark brown with some light bands visible on the abdomen. The females dig burrows, primarily in thin turf, bare ground or in flower beds with ground showing. Each female will throw up a small mound of soil that can be two to three inches in diameter. On sunny days, the males zig-zag over the nesting area and the females often bask in the sun on top of their burrow opening.



Ground bee female in burrow.

Since they are "bees," home owners are often afraid that they or their children will get stung, but the only way you might get stung is to physically pick up one of the females with your bare hands. I've stood in the middle of some pretty large colonies swatting the passing bees and never got stung! (I demonstrated this to a home owner a couple of years ago!)

Frankly, we should welcome these early bees as they are important pollinators of flowering plants. If you really want them to be gone, I prefer to modify the habitat rather than trying to nuke them with pesticides. The best, long term, remedy is to thicken up the turf, grow a thick ground cover or use a layer of mulch that completely covers any bare soil!

## Tech Talk

### Dealing with Moles...Again!

Some strange things are happening with moles! Because of the very wet soils, some of the traditional mole tunnels and mounds are looking a bit strange. In fact, some of the moles apparently dug surface burrows, just under the snow and when the snow melted, it looked like bigger than normal vole trails! The key difference is the bigger mounds of soil scattered about. Moles typically throw up these mounds of soil, but voles prefer to hide in burrows at the bases of plants or in mulch piles.

I had some lively discussions about moles during the winter industry meetings! Most complained that the baits weren't working and that trapping was too difficult. Where have I heard that song before??!! LOL! Bottom line, the only really effective control of moles is trapping! However, trapping is not all that simple! You need to find the straight runs which are the ones used on a constant basis by the mole. Little short runs are places where the moles are looking for insect food while the long runs are actually earthworm traps that the mole checks on an hourly basis! When you set the trap in one of these long runs, you greatly increase your chance that the mole will run into it!

I still recommend visiting The Mole Man's web site for information on how to effectively set mole traps! Tom Schmidt is a professional mole trapper in Cincinnati and he certainly knows what he is doing!

(<http://www.themoleman.com>)

### Keep a Watch on the Phenological-GDD Site!

There have been lots of comments on using growing degree-days to predict insect, disease and weed activities and several states and organizations are beginning to post site. I find it strange that many don't seem to know that we have one of the best sites here in Ohio, run by our own OSU folks!!

Dan Herms and a group of other extension folks, master gardeners, and students have developed one of the most accurate and complete sites! Just enter in your zip code and you can see where you should be in plant development and insect/mite activity! And, best of all...it's free!

<http://www.oardc.ohio-state.edu/gdd/>

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