

The P.E.S.T. Newsletter

PEST EVALUATION AND SUPPRESSION TECHNIQUES

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Comments

Geez! I certainly didn't think that using the password of "winter" would have ensured that we CONTINUED to have winter! This is the latest that Spring has arrived in many years. While official Spring arrived over a week ago, there is little evidence of it in Ohio. When I took my spring break during the week of March 17, my wife and I drove to visit with my mother and sisters in Houston, Texas. By Kentucky, I began to notice the red maples in bloom among the other woodlot trees. These trees have very small, but dark red flowers that stand out against the gray background. By the time we got to Nashville, the callery pears were in bloom and their white flowers were putting on a very good display through Tennessee and into Arkansas. Then, the redbuds became noticeable. By the time we got to Texas, there was definite greening of the forests with many trees putting out leaves. After a week in Texas, watching the reverse phenological sequence during our return drive became a bit depressing as we got into Ohio where everything was again in those gray winter colors, except that the red maples were showing color!

I have faith that Spring will soon begin its displays as I see our tree buds beginning to swell as well as obvious changes in other early season bloomers, like *Forsythia* and deciduous magnolias. I also noticed that the flower buds on my peach tree are noticeably swollen this week. Hopefully, having a late spring may save our plants from a late, killing frost like we experienced last April.

I hope you enjoyed Dan's little animation sequence featuring the white pine weevil that was posted on our opening page of the *P.E.S.T. OnLine* version! We'll keep the password (winter) the same for the next two weeks. Dan and I are working on developing additional animations and streaming videos - stay tuned!

The BugDoc (Dave Shetlar)

What Was That?

Household Pests Dominate Inquiries-

While we've had a delayed spring, the various household pests are continuing to annoy folks. Every week we get samples of "little beetles" and "little moths" into our diagnostic clinic.

The beetles usually turn out to be the cigarette or drugstore beetles. These tiny beetles, about 1/8-inch long, are generally a solid dark brown color and it takes a microscope or strong hand lens to tell the difference between them. Drugstore beetles are a bit lighter in color and they have fine furrows down the wing covers. Cigarette beetles are more rounded and have no striations on the wing covers. Both have C-shaped grubs but the drugstore beetle larva has almost no hair and the cigarette beetle larva is distinctly hairy. Both beetles infest stored products, usually in the pantry, but you can find them



Cigarette beetle adult.



Drugstore beetle adult.

infesting dry dog or cat food that may be stored in the garage or basement. We actually found a pretty large infestation of the drugstore beetles in my mother's kitchen after she complained seeing these little brown beetles walking across the counter "almost every day." They were primarily in some dry pasta, an old bag of stuffing mix and some crackers! Cigarette beetles often eat what you would think is impossible to live on! They are commonly found in various spice containers, especially chili powder and paprika!

If you see either beetle, open and inspect all stored, dried food materials. Even boxes that are sealed are usually not sealed well enough to keep out the tiny larvae of these beetles. However, most of the newer plastic, heat sealed bags seem to be pretty difficult for these pests to invade.

Little gray, tan or straw-colored moths are probably another stored products pest. Indian meal

moths are the most common culprits, but occasionally, we see the Mediterranean flour moths. Indian meal moth larvae feed on stored grains, flour, cereals, nuts and dried fruits. The mature caterpillars are about 5/8-inch long, cream to slightly pinkish in color, and they have a habit of creeping around cupboards in search of a pupation site. Other than the small adult moths flying about, the larvae and pupal cocoons are often sent in for identification. I was pretty upset a few weeks ago when I had to get a new bag of dry dog food. When I walked by one of the shelves at the pet store, I suddenly realized that there were several Indian meal moths flying down the aisle! Needless to say, I felt like leaving, but I bought a bag of food anyway. I knew that it was going to be well below freezing for the next couple of days, so I left the bag outside to freeze which would kill any moth eggs or larvae that might have been inside the bag! Just some additional protein for the puppies!

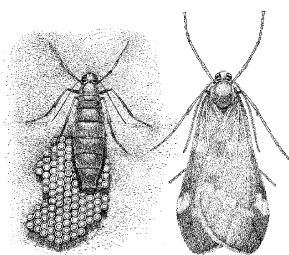


Indian meal moth adults are about 3/8-inch long and have a coppery-brown band across the wing tips.

Control of these pantry pests should not be by using pesticide sprays! The most effective method of ridding a house of these pests is diligent inspection, throwing out any infested foods and freezing all other containers of uninfested foodstuffs. Remember to check out dry pet foods, bird seed containers, dried flower products, and any of those new pillows that contain buckwheat!

Moths Flying?!

During those few days when our temperatures have gotten into the 50s and low 60s, moths are commonly found spotted under porch lights. These are usually broad-winged moths and most are brown to gray in color. Some of these are likely the males of the spring cankerworm, but there are also some species of cutworm



Spring and fall cankerworm adults can be active in March! The females are wingless, but the males have broad wings and are commonly attracted to night lights.

adults that can come out early in the season. While we usually don't expect to see any moth flying when temperatures are below 50 °F, some of these moths have the ability to rev up their body temperatures by vibrating their wings. Yes, I know

you've been taught that insects are "cold blooded" and can't regulate their body temperatures, but this isn't true for all insects. Like reptiles, some insects orient their bodies in the sunlight and they can warm their bodies above the ambient temperature. Others, like these moths, are able to generate sufficient metabolic heat by vibrating their wings that they can take flight.

Crystal Ball

Phenological and Degree-Day Updates

Dan Herms and several groups of OSU Extension master gardeners have continued to develop our Ohio Phenological - Pest Calendars. Remember, that plant phenology is observing and recording the sequence of visual events that various plants go through during a season (usually flowering). I've worked with degree-day models for many years, and I'm convinced that phenological calendars are as good, and often better, predictors of insect and mite pest activity! And, making these observations can be easier than trying to track degree-days.

If you haven't bookmarked it yet, Herms maintains a web site that tracks degree-days and plant phenology across Ohio. Go to:

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

Simply enter in your zip code and the predicted growing degree-days (GDD) and phenological calendar for your area will be presented. Among the plant phenological events, you will find various insect and mite activities.

Upon checking the site last Wednesday for Delaware, Ohio, it appeared that we were within a few days of having Star Magnolia beginning to bloom. This is an indicator for first emergence of adult white pine weevils that I talked about in the last *P.E.S.T.* Soon thereafter, *Forsythia* will begin to bloom which is the time that eastern tent caterpillar eggs hatch. A week to 10 days after this, the Callery pears will begin to bloom and the European pine sawfly larvae will hatch. Neat sequences!

Tech Talk

Other Spring Activities -

I'm noticing that trucks of mulch are already on the move and people are "refreshing" the mulch in their landscapes. I'm really not a fan of this activity

because it places mulch into a category of a landscape “decorating feature,” not the plant protecting layer that it was originally intended for. We apply mulch to help regulate soil moisture and to help reduce weed seed germination. If you have a mulch layer left from last year that still covers the soil, then the weed barrier is still in effect. We don’t want thick mulch layers in the spring as these are likely to keep the soil too moist. With all the rain and snow we’ve had recently, apply heavy layers of mulch are likely to cause root-rotting conditions! Also, wet, thick mulch layers are more likely to develop layers of decomposing fungi. When these fungi dry out in the summer months, they form a hydrophobic layer which is nearly impossible to penetrate, even with regular irrigation.

Remember that we generally recommend mulch layers in the 2 to 3-inch depth range, though I personally prefer 1.5-inch layers. This covers the soil and provides sufficient moisture and heat protection for the summer months, yet allows the soil to “breathe” and rid itself of excess water. For those who don’t like the color of old mulch, there are some water-soluble paints that can restore color. I prefer the natural weathered look of mulch, so I simply take a leaf rake and break up my mulch layers which also exposes some of the darker colors. If I come across any thin areas, I spot cover these with some new mulch which I rake again to blend it into the existing mulch.

I was also a bit surprised two weeks ago when I saw several TV ads on using “crab grass prevention” products. These ads were obviously planned using calendar dates, not current soil conditions. As I’ve stated before, I’m not a real fan of covering each and every lawn with these pre-emergent herbicides. If the lawn is thin and open to crabgrass infestation, then the better option would be to slit-seed in desirable grass to fill in the open areas. If you put down the herbicide, then this seed won’t germinate!!

It’s been my experience that well maintained turf that is thick and cut at the recommended 2.5 to 3-inches will almost never get crabgrass emergence. The thick grass covering the soil acts as a barrier to keep the weed seeds from germinating. However, even in thick lawns, there can be some damage from foot traffic, or in the case of this winter, possible snow salt damage. In these areas, where the turf has

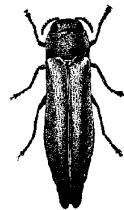
been thinned out, a little fertilizer will bring it back, and a band treatment of a pre-emergent herbicide is in order.

My recommendation for early spring lawn treatments is to simply apply a half rate (about a quarter pound of nitrogen per 1000 ft²) of a quick release fertilizer or a full rate (a half pound of nitrogen) of a slow release or organic fertilizer. This will help green up the turf and get it growing but not stimulate too much growth that you have to mow off twice a week through April and May.

Recent work by one of our Entomology graduate students has been investigating the efficacy of homeowner (do-it-yourself or DIY) products for lawn care. He has come up with some disturbing evidence that most of these DIY materials don’t work much better than doing nothing at all!! This is most evident in broadleaf weed control. The bottom line is that the dry-granular herbicides simply don’t work well. If you need to control dandelions and other broadleaf weeds, I recommend using sprays. Spray herbicides are much better at staying on the weed leaves and they are therefore much more effective. Apparently, you would be better off purchasing just a bag of fertilizer, spread that and then spray the weeds. Even with this spray, you’ll likely have to spray again in the fall. Better yet, if you only want to spray the weeds once a year, most broadleaf weeds are best controlled in late September and October, NOT in April and May!!

Emerald Ash Borer Update-

Folks at the Ohio Department of Agriculture finished their sampling of EAB trap trees and we are now up to 34 Ohio counties with confirmed infestations/detections. Remember that the Federal USDA has the entire State of Ohio under quarantine which means that you have to jump through their hoops in order to transport ash products across the state borders. Within Ohio, infested counties are under a state quarantine that prohibits movement of ash trees, ash tree products (e.g., lumber logs) and ALL hardwood firewood from being moved from infested counties into uninfested counties. You can move these products if you follow quarantine procedures (e.g., removing bark from logs to be cut for lumber, chipping to a certain size, etc.).



A typical *Agrilus* adult.

The current quarantine counties can be found on our OSU Extension web site on EAB:

<http://ashalert.osu.edu>

Check under the links where you'll find the state and federal quarantine maps as well as quarantine information. During the winter months, we have also added improved PowerPoint Presentations on EAB detection, identification and control.

Speaking of controls, now is a good time to review EAB controls. Not much has changed from last season except there are some new insecticides that have been evaluated and show improved promise of control. However, these haven't been registered yet but the companies are working on them! Basically, for homeowners who wish to try and control EAB, the easiest product to use is the Bayer Advanced Tree & Shrub Concentrate. Simply follow the label instructions for drenching the base of the trees. This application should be made by mid-May for season-long control. Professionals have several imidacloprid (Merit, etc.) products as well as Safari and a couple of injection materials.

Now, what trees should be treated? Obviously, this is a touchy question as everyone has different values concerning the ash trees in their landscapes. Many municipalities have run the long term numbers on the cost of treating trees. In general, the cost of control exceeds the cost of replacing the tree after five or six years, so many municipalities are adopting a multi-year removal and replacement strategy. However, there are some municipalities that have identified certain ash trees that they want to try and protect. Likewise, individual home owners certainly have the option to treat their own trees and keep them alive. However, remember, once

treatments have started, you'll need to treat the trees every year!

When should you start treatments? Again, there is a lot of misunderstanding on this question. First, if you are in a county where EAB has not been detected, there is no reason to spend money on treatments.

If you are in a county where infested trees have been identified, look at the state detection maps (linked through our EAB web site). There are county maps that have pretty precise locations of EAB detections. If your ash tree is within a mile of where a known infestation is located, it's probably a good bet that you should begin treatments.

If you think that an ash tree is infested AND you want to try and save it, the reality is that this will be a tough task. Even if you are successful in eliminating the current infestation, you should ask yourself whether damage will be so severe that the tree has lost its aesthetic value. If this is a real risk, you should probably just replace the tree.

More Honey Bee Questions-

Unfortunately, CBS TV reran their 60 Minutes segment on the honey bee colony decline syndrome. In this piece, one of the professional beekeepers and an environmentalist claim that imidacloprid (Merit) is responsible for the malady.

Again, there is no scientific evidence that supports this contention, just as there is no evidence that cell phone towers are the cause! Bee scientists have identified a virus as being the most likely cause, but they haven't confirmed what stress factor or factors are responsible for allowing this virus to take over the bees.

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