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## Peach tree borers

Posted by Marsha Lindner

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Marsha Lindner

Peach tree borers

November 28, 2012 06:11AM

Registered: 11 years ago

Posts: 9

I am starting to get a lot of greater and lesser peach tree borers. I used neem oil applications to the bark this year but I am not sure it was effective. Does anyone know of other organic approaches?

Reply Quote

Michael Phillips

Re: Peach tree borers

November 28, 2012 05:29PM

Moderator

Registered: 11 years ago

Posts: 621

Peach tree borers are moths, with the greater species laying eggs at the soil line and the lesser species favoring branch crotches and sunscalded bark. Learn the specific timing of oviposition in your location, likely stretched across the June/July/August window but perhaps compressed when conditions accelerate first flight. Botanical trunk sprays of neem oil need to be timed when the female moths start laying eggs. It's also critical that the neem oil concentration be upped to 1% and even 2% in the tank mix (this spray is not applied to leaf tissue so this is not going to be phytotoxic.) Neem is going to do two things: confound the sensory cues of the adult females to the point of repellence, and, interrupt the molting cycle of the various instar stages of larval development and thus kill off the grubs. It's also critical that trunk sprays be applied to excess, totally saturating bark tissues and actually puddling at the base of the trunk to be absorbed all the more by bark tissues at the soil line. Think 'soil drench' only targeted at the base of the trunk. The fatty nature of pure neem proves very systemic in carrying the active constituents in the oil into bark tissues. These sprays should be repeated at 14 day intervals for as long as the oviposition period lasts. It's going to be more challenging to achieve complete saturation in branch crotches and on the standing trunk for lesser peach tree borer.

Given that context, Marsha, it would help to know the details of your neem oil applications. Start by confirming that you are using raw unadulterated pure neem oil (which I think you are) as the patented neem products are not going to be effective.

Other organic approaches need to key to the fact that peachtree borers are moths.

Lost Nation Orchard

Zone 4b in New Hampshire

Reply Quote

Marsha Lindner

Re: Peach tree borers November 29, 2012 01:52AM Registered: 11 years ago

Posts: 9

I used monitor traps for greater and lesser moths and had my first outbreaks (12 or more in a trap) on 4/3. We had a very early spring. I used the pure neem from Ahimsa at a rate of 3 tbs. per gallon. I only used it on the trunks and lower scaffolds but probably didn't drench it as well as needed. I did repeat the spray when I had another large trapping.

Does the female lay eggs shortly after they arrive in the spring? Over how many weeks will the continue to arrive? Would wrapping the lower trunks and using a stickum help in any way?

Reply Quote

Paul Weir Registered: 11 years ago Re: Peach tree borers Posts: 187 November 30, 2012 10:04PM

The hatch is going to be tied to your specific microclimate of your property or area. You will need to be a diligent detective to learn the signs and conditions ideal for these moths to arrive on the scene, mate, lay their eggs, hatch, destruct, pupate, etc. Your attention to your traps was a great start. The kick in the butt is that the timing will be different every year, due to variations in annual weather patterns. Knowing about when they are most likely to hit your location is a great point of awareness (to be ready), but be prepared for things to adjust, plus or minus, by days or weeks each year.

As Michael recommends, increase your neem spray to 5 tablespoons (5 tablespoons = 2.5oz = 2% solution in one gallon)

Another exciting organic option to consider in addition to using the raw pure neem is Predator Nematodes to battle the Peachtree Borers. I know most nematodes can not be applied when soil temps are below 45-50 degrees, so you will be waiting until next Spring for this option. There are several nice write ups on the use of beneficial & predatory nematodes:

Colorado State University [www.ext.colostate.edu]

University of Maryland Extension [joa.isa-arbor.com]

University of Connecticut IPM [www.hort.uconn.edu]

Good luck!

Gopher Hill Apples
Zone 8 in California

Edited 1 time(s). Last edit at 01/06/2013 04:20AM by Michael Phillips.

Reply Quote

Dan Lefever
Re: Peach tree borers
Registered: 10 years ago

Posts: 15

April 21, 2013 01:40PM

A few things you might trial (none of which I have tried):

- 1. Add <u>Orange Guard</u>, an OMRI listed insecticide / deterrent, water and d limonene from orange peels. Manufacturer says that it exhibits a repellency effect for 2 weeks following application and the initial knock down capability. There is a household insects formula and a more potent horticultural formula available.
- 2. The old method of moth balls at the base of the tree [to kill borers already in trunk and causing damage] beneath a mound of soil could possibly be detoxified by the use of Camphor crystals. Will it kill borers as paradichloro benzene does or only act as a deterrent? If the latter then the addition to number 3 may be more appropriate. What about other essential plant oils that may help with deterrence?
- 3. Use Surround or other clay slurry to coat trunk both as a deterrent and as a carrier / protectant for nematodes and/or neem or other insecticidal material. Does any one have experience using the BD tree paste in this manner; being effective for PTB, LPTB, or flat head apple borers?
- 4. Most of the old literature recommendations were for coating peach tree trunks with lime / sulfur slurry for winter sun heating protection but also for some control of PTB. Maybe adding it to clay could make it more effective for PTB. Use calcium oxide (unslaked lime) or calcium hydroxide (slaked-mixed with water calcium oxide) lime not calcium carbonate (unburnt ground limestone). Review old literature recommendations to avoid "bark" injury potential.

If you trial any of this please report your results!

## Addendum added 2/22/14 Effect of roots on PTB infestation

Does anyone know of any research or have their own empirical evidence to back the premise that the rootstock effects the susceptability to PTB invasion? More to the point do seedlings or self rooted trees have less PTB damage? My limited observation in my backyard, 4 seedling trees; 3 not vigorous, (the oldest and least vigorous, still only 4" at base & over 15 years old), have never exhibited any signs of PTB attack, but there has been a bit of LPTB in older scaffold wood, probably because its not been renewed enough by pruning. If being a seedling helps to prevent PTB damage; then I would say that there is a strong case to utilize self rooting of cultivars, since it is as easy to accomplish with peaches as doing budding. Self rooted peaches demonstrated higher levels of Ca uptake than the same varieties that were grafted; this should equate to stronger cell walls and thus more disease resistance. This was from report by Gary Couvallin(sp?), U of GA in the late '80's, who was doing "meadow culture" of peaches. Meadow culture is growing trees as a row crop and replacing them about every 5 years; with tree(plant) densities in the thousands per acre, thus the need for easy mass propagation, i.e. self rooting. If you are interested I can relay the technique used for rooting cuttings; just contact me.

Dan Lefever
SE Penna, zone6b-7a
biorat@comcast.net 484-318-3789 mobile
Reply Quote
Marsha Lindner
Re: Peach tree borers

Registered: 11 years ago
October 03, 2013 03:57PM

Registered: 11 years ago
Posts: 9

I am circling back on my Peach Tree Borer post. This year i added extra Surround to my spring tree paste application and really slathered it on, especially on the rough textured bark of my older trees. When my traps indicated Greater and Lesser peach tree borer activity, I used a 2% pure neem application only on the lower scaffold branches and trunk and into the gravel at the base of the tree. I had used this procedure last year as well but used a weaker solution and used a thinner tree paste.

Observation: I did not see amy new borer holes this year and my traps had fewer insects. This is a wonderful improvement from last year. Marsha Lindner

Zone 6A Ohio

Reply Quote Dan Lefever Re: Peach tree borers February 21, 2014 09:12AM

Registered: 10 years ago

Posts: 15

A new material for dealing with borers is available now. It is a water soluble neem extract (broad based botanical insecticide) called Azasol from Arborjet the landscape tree systemic injection company. It is very expensive \$55 for 3/4 ounce. Injection is effective for use in trees 4 inches in diameter or greater. It is an effective "natural" control for emerald ash borer. Unfortunately peach trees are at there most susceptible when one to two inches in diameter and one or two borers can completely girdle a tree. It could be used in combination with a silicone based carrier called PentraBark which translocates materials it is able to carry through bark lenticels. It (Pentrabark) is being used with phosphorous acid formulations as a fungicidal preventative (and /or curative) for oak wilt disease in Calif. neighborhoods. There is plenty of concern that PentraBarks breakdown products are much more toxic than the initial chemical and potentially a potent endrocrine disrupter; as I recall [discussions can be found on line].

This all becomes a nearly chemical approach and not at all an organic ecosystem approach; but in the case of the unnatural; contrived ecosystem of street and urban tree settings it may be much more realistic than organo-phosphates or dithiocarbamate fungicides, etc. as used in the past. It may be an acceptable way to protect a large planting of new peach trees for a few years until size(girth) and a better balanced ecosystem can overcome the potential tree destruction via PTB.

Is this water soluble neem able to be more systemically absorbed on its own in a water based application than oil based neem? Is its insecticidal activity longer lasting once it becomes systemic? What becomes of the rest of the insect ecosystem balance when it is systemic? How effective is neem for OFM? If it has good activity against OFM would it be effective for late generations which become much less distinct in their egg hatch timing; if when it becomes systemic it has a much longer residual activity. Are there any known longterm problems with ingestion of concentrated azadrichan by birds or mammals. What about pollinators and /or predatory wasps like trichogramma?

Dan Lefever BioRational Resource Malvern, SEastern PA Zone 6a/7b Reply Quote Beth Mouser Re: Peach tree borers October 18, 2014 08:46PM

New here and new home orchardist on an acre. Our trees are mostly 4 years old and we haven't done anything after planting except prune and add ramial wood chips in a circle under drip line. Someone told me recently that my trees have PTB. We dug the eggs out from the base of each tree and now have a trench circling base. We are going to fill with the gravel Michael recommends in his book rather than backfilling with soil. I see where the borers also entered at the SW side of trunks (we did not even wrap trunks) and now I want to wrap them but wonder if I should apply a paste first before wrapping? Do you recommend using DE as a paste?

We will be applying Neem Oil in Spring and I hope I can tell appropriate time to apply. Our extension office may know. Also researching beneficial nematodes. We have 2 sheep, chickens, bees, and I am also trying to learn to grow food. It may be too late to save my stone fruit trees...

Beth Mouser Boise, Zone 6B Reply Quote Dan Lefever Re: Peach tree borers May 14, 2015 12:58PM Beth.

Registered: 10 years ago

Registered: 9 years ago

Posts: 1

Posts: 15

Get pheromone traps for PTB to determine timing, extension may or may not really know exactly. Install away from peach trees to decoy males away; in a small planting it may help enough to control them, but don't count on it, as only one borer can girdle a small caliper tree. Gemplers has a very complete list of traps available in single quantities.

Edited 1 time(s). Last edit at 05/14/2015 01:24PM by Dan Lefever.

Reply Quote Hallie Sheaffer Re: Peach tree borers

Registered: 8 years ago June 13, 2017 05:31AM

I wanted to share a method that is so far working quite well for me in the battle of the borers. I bought a house ~18 months ago with a 5" diameter nectarine tree. Fall of 2015 I noticed the typical gummosis and frass associated with greater PTB all the way around the tree. After an afternoon of removing the dirt at the base, poking and prodding for larvae, I left the dirt removed so that the bark could dry out and toughen up. In spring, before the weather warmed up enough for the PTB to become adults, I tried cedar chips at the base of the tree to discourage the moths from laying eggs. Of course, there were some leftover pupae in the soil around the trunk so last summer I still had to fish out some larvae, but the infestation wasn't as bad as the year before, and the tree seemed to be healthy. The problem with the cedar chips is they are cumbersome and difficult to separate from the soil for checking for PTB activity. So this year, I made a "snake" with around a gallon of cedar chips and a strip of floating row cover - Reemay, aka gardener's cheesecloth. The chips are rolled up like a very long burrito and the row cover is twisted at the ends to hold it all in place. Then the snake is twirled around the base of the tree, kind of like a turban. This does two things: The cedar discourages moths naturally, and the row cover creates a physical barrier which prevents adult moths from laying eggs near the soil where the larvae can get access to soft, wet bark. Plus, it's easy to remove to check for frass/gummosis. No neem oil or clay slurry necessary. It's not the most beautiful display in the world, but if you could find brown row cover (or spray-paint a row cover brown) it would look better (for all the urban orchardists like me out there). I have a similar cedar "snake" around my my newly planted cherry and peach trees in an attempt at preventing infestation. I'll check in next year and report the effectiveness. If this method works to prevent PTB infestation, it certainly would save time spraying and painting and poking and prodding. Now if only I could do the same for my squash plants...

Reply Quote

Josh Willis Registered: 6 years ago Re: Peach tree borers

Posts: 134

June 04, 2021 10:52PM I wanted to revive this posting with a question about wood ash. Michael mentions that old timers used to pile wood ash around the base of the trees to deter peaches. Does anybody have direct experience with this? or any ideas of how much? (I say as I sit with about 250# of wood ash after finally cleaning the fireplace ash pit out last fall).

Earthworks Zone 7a in West-Central MD Non-commercial, ~100 fruit trees, dwarf to MM106 Reply Quote Newer Topic Older Topic Print View RSS Sorry, only registered users may post in this forum.

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