



Fire Blight vs. Blossom Blast / Wilt ID

Posted by [Josh Willis](#)

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[Josh Willis](#)

[Fire Blight vs. Blossom Blast / Wilt ID](#)

May 10, 2019 12:52AM

Edit: Local extension ID'ed the fungus shoots as sign of Ambrosia Beetle. gulp! Always lovely to learn about a new fatal pest.

Registered: 6 years ago

Posts: 133

Will leave this post up in case others have similar question, but let me know if it makes more sense to delete.

--

Trying to ID what I suspect is fire blight and hope is a fungal issue instead, on a 10 y/o Pear. Any takers?

Photos here: [[ask.extension.org](#)] (apologies for the poor grammar, that's what I get for punching out the submission on my phone).

Not evident in the photo, but I didn't see any of the ooze typical of FB. Die off appears restricted to blossoms & surrounding leaves.

thanks!

Earthworks

Zone 7a in West-Central MD

Non-commercial, ~100 fruit trees, dwarf to MM106

Edited 1 time(s). Last edit at 05/10/2019 08:39PM by Josh Willis.

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[Michael Phillips](#)

[Re: Fire Blight vs. Blossom Blast / Wilt ID](#)

May 17, 2019 02:33PM

Moderator

Registered: 11 years ago

Posts: 621

The bacterial species *Pseudomonas syringae* has the ability to infect young tissue subject to freeze damage through the bloom period. I've had reports of Blossom Blast here and there this wet spring throughout the Northeast . You keyed on to the "ooze factor" with respect to this not being fire blight, Josh.

Copper applications if timed beforehand will reduce organism viability on the surface of the tree. Taking out one bad actor in turn takes out the rest of the team, of course. Allopathy can have a place when the sun isn't shining and the world is wet and cold . . . but how does one know what's about to happen? Spring holistic applications aimed at building competitive colonization is the alternative. Blossom Blast is driven by conditions, and thus the *opportunity* to penetrate tissue, so bacterial strikes still may occur only good biology keeps it relatively contained. Same story line as fire blight only nowhere near as devastating if left unchecked.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

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[Peter Fisher](#)

[Re: Fire Blight vs. Blossom Blast / Wilt ID](#)

May 17, 2019 03:14PM

Registered: 10 years ago

Posts: 82

I have what I think is bacterial blossom blast in Asian pears. Doesn't start at the tip of the branch and form the shephard crook, but instead the blossoms and leaves die off and curl up. Should the infected branch be removed as with fire blight? It is so far limited to a few branches on 2 10 yr old trees. However, two one year old trees that looked fine last season and leafed out this spring appear to now have died, the leaves all turning brown and dropping. They were right across the aisle, as if the infection blew through the orchard as I have seen with fireblight.

Turkey Creek Orchard

Solon, Iowa (zone 5A)

Edited 1 time(s). Last edit at 05/17/2019 03:17PM by Peter Fisher.

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[Mike Biltonen](#)

Registered: 10 years ago

Posts: 298

[Re: Fire Blight vs. Blossom Blast / Wilt ID](#)

May 17, 2019 03:20PM

I echo Michael's comments and offer the additional. Pseudomonas has become more prevalent in pome fruit in recent years here in the Hudson Valley. But I don't buy that it is a sign of ambrosia beetles necessarily since you can have infections without AB damage. If you have the damage that's one thing, but I have not seen the correlation in the field and know that AB usually comes out after Ps has started to do its thing. Which is more correlated to open blossoms. The nice thing about Ps is that it doesn't last long and is not systemic in the same way that FB is systemic. It infects open blossoms - esp in cool wet years - causes them to collapse and then dies itself, making it hard to isolate in a lab. I know, because we had a similar situation here, brought in samples to the Cornell lab, and he had a bear of a time isolating it. Ps is also the same bacterium that causes canker in sweet cherry and other stone fruit, so it's pretty common that it's around, but the conditions how it is surviving in the wild and then able to infect pome fruit are "new" in the sense that this disease seems to be more prevalent than it has been in the past. Michael is also correct that copper can clean up any surface bacterium (epiphytic populations), reducing the potential for infections. As well, though there isn't any direct evidence of this, we do know that some materials are also bacterial suppressants - Double Nickle, Actinvoate, Thymegard - and you might want to try these since they won't theoretically be as harsh as copper. A few days after these applications, renewing the "good guys" with an EM or some holistic sprays helps reestablish those populations and prevent epiphytic populations from establishing a quickly. All of this said, once you have the damage, there isn't much to do except cut it out and watch for additional infections (which I doubt will happen once you are past bloom), just be ready for next year. Finally, another product that I am very interested in is LifeGard (Certis) which is listed against fireblight in pear (so it has antibacterial properties) but according to the Certis reps is NOT a fungicide or bactericide, but acts strictly through SAR pathways. It has been very effective in Downy Mildew and other grape diseases in a way that no other products seem to work. This is another option so as to not disrupt native microbial populations (aka the good guys).

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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[Josh Willis](#)

[Re: Fire Blight vs. Blossom Blast / Wilt ID](#)

May 17, 2019 05:40PM

Registered: 6 years ago

Posts: 133

Thanks all. I think in the end this tree had both Blossom Blast and AB (its pencil-like frass seem unmistakable, and unfortunately, very widespread on this tree). Always fun disentangling simultaneous issues. Not much to be done about the latter (at this point), but we'll keep your good advice in mind for the former. Thanks!

Earthworks

Zone 7a in West-Central MD

Non-commercial, ~100 fruit trees, dwarf to MM106

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[Mike Biltonen](#)

[Re: Fire Blight vs. Blossom Blast / Wilt ID](#)

May 17, 2019 05:58PM

Registered: 10 years ago

Posts: 298

Well, there is something to be done about AB. Maybe not about the damage today, but going forward tomorrow.

1. hang AB traps - empty plastic juice containers (Simply Juice seems the most popular), cut two sides out, fill with 1.5" vodka mixed with antifreeze, wait and watch. The ethanol (what AB is attracted to by stressed trees) attracts the AB adults and you monitor first flight, flight length, and population flight peaks. It is NOT a trap out situation, but a monitoring one.
2. Once flight is off and running, you can spray the tree with a combo of Entrust/Pyganic/Thymegard to kill the burrowing females. This needs to be repeated, ain't cheap, but can reduce significantly the amount of damage.
3. If damage occurs, the same above mix + phosphite (not organic or holistic) can kill the eggs, hatchlings, and the fungus they need to survive in the tree. It doesn't eliminate the damage from the insects, but can limit the damage from the larva and more importantly the fungus the momma brings with her to feed her young. This is what causes the real damage.
4. Where there is damage (and after step 3) I'd apply straight neem oil to heal and repair the damage. This is the same thing I've used to help repair borer damage (I think Michael first posted this remedy somewhere here in the last few years).

**Why Phosphite? Because you need a systemic fungicide to kill the fungus and there isn't anything organic or holistic that comes close. Phosphite is somewhat systemic and on small diameter trees can penetrate far enough to do some good (that's my own belief).

***If not phosphite, what? Garlic oil injections may also do some good. But that it's time consuming and requires to damage the tree in order to properly inject the garlic oil.

Any other thoughts out there?

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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