



Pears in the MidAtlantic

Posted by [Joanne Patton](#)

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[Joanne Patton](#)

[Pears in the MidAtlantic](#)

September 08, 2016 06:20PM

Hi Folks,

Registered: 7 years ago

Posts: 62

I am like a deer in the headlights when it comes to spraying anything on my European pears as they seem extremely sensitive to everything. I summer prune (3 times so far) the pears as they are espaliered and most of the new leaves appear to have experienced some phytotoxicity. I know not to spray neem or fish on the pears after they break dormancy, especially if its expected to be hot, so all I have been spraying is EM and kelp. Occasionally I include spinosad (or Bt) and Epsom salts for a Mg deficiency as confirmed by leaf tissue analysis and soil tests (1TB/gal + 1tsp soap). I don't feel I have a lot in my arsenal and if fire blight strikes, I really don't want to go resort to streptomycin (I know not to prune when we have a wet forecast). I can make compost and herbal teas but again, I am afraid the leaves with turn brown and die.

Planted in 2011, the espaliered pear varieties in order of sensitivity include Moonglow, Potomac, Flemish Beauty, Harrow Delight, Anjou, Seckel, Magness, Sunrise, and Shenadoah. Luckily I forgot about the Comice trees which I read from other posts are extremely sensitive. More details can be found in this post [Pear Sensitivity to Neem](#) but it also applies to Fish.

We had an incredibly wet wet spring here in Northern Virginia but the trees received no fungicidal chemical support. We have zero fruit from the pears, but the HARD freeze we had on 4/25 may have had something to do with that as the trees were blooming. Or maybe it was one of the early holistic sprays with neem and fish in the tank. In hindsight, maybe I should have used sulfur but I didn't. So, the leaves are spotted - some rust, some mycosphaerella leaf spot. I am really trying to get this Holistic program off on the right foot (this is my first season) but I'm feeling a bit overwhelmed with this pear sensitivity. I fully admit I am on a steep learning curve. So what am I doing wrong? What should I be doing different and what do YOU do with your sensitive European pears when fungal pathogens are rampant and even throughout the growing season?

The new orchard of apples and pears went in this spring and I definitely don't want to make the same mistakes that I've made on the espaliered pear trees.

Thanks so much for any help!!

Joanne Patton, Squire Oaks Farm

Zone 6A, Northern Virginia

[Reply](#) [Quote](#)

[Peter Fisher](#)

[Re: Pears in the MidAtlantic](#)

September 08, 2016 08:19PM

Registered: 10 years ago

Posts: 82

I have been using the "full Michael" spray program on my pears for a couple of years, leaving out the neem oil, but including liquid fish, compost tea, fermented herbal teas, and EM. I haven't had any issues with phytotoxicity except for the one time I forgot where I was in the orchard and used the holistic spray with neem on the pears.

Turkey Creek Orchard

Solon, Iowa (zone 5A)

[Reply](#) [Quote](#)

[Michael Phillips](#)

[Re: Pears in the MidAtlantic](#)

September 09, 2016 03:16AM

Moderator

Registered: 11 years ago

Posts: 621

I have deliberately toned down the fatty acids by not applying the Spring 3 and Spring 4 applications whatsoever to my handful of northern pears. It helps not having varieties subject to pear scab in order to do this. Yet beyond that apparently sensitive post-bloom period, I indeed resume holistic applications in the fruit sizing window. This is not a fungal consideration at all for me, but rather, about a burgeoning pear leaf blister mite situation. Only neem has the systemic action to affect internal foliar pests like this, so some minor leaf spotting following extremely quick application is acceptable.

I think Mike Biltonen asked a brilliant question in the [neem sensitivity](#) thread: Why pears? We're assuming fatty acids are the problem yet I have not encountered this when there's liquid fish in a particular spray mix without neem. I also think cutting the neem rate with karanja oil (which is a given for me now) helps lessen the impact. It all comes down to the specific challenges of pears in a given bioregion. The timing of fire blight is paramount in the bloom period and month beyond, maybe even longer in these ever-hotter summers. Microbes and seaweed help greatly with that . . . which suggests using the Competitive Colonization Boost approach (shared in other posts and past newsletter articles) on pears in early summer. The inclusion of half-rate karanja oil in a CCB may not do damage and yet help with fungal pathogens. I'm not familiar with "pear rust" in this part of the world, and this is the first time I'm hearing about *mycosphaerella* leaf spot as a fruit orchard concern (which probably means now I will see it shortly!) Still, I think appropriate holistic coverage throughout the primary infection window and fruit sizing window will get the job done most

years . . . given the right tweaks for pears.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

Edited 1 time(s). Last edit at 09/09/2016 04:29PM by Michael Phillips.

[Reply](#) [Quote](#)


[Joanne Patton](#)

[Re: Pears in the MidAtlantic](#)

September 13, 2016 08:56PM

Registered: 7 years ago
Posts: 62

Thanks gents for the reply. My pear trees, on the whole, really are doing fantastic - especially when I don't spray neem; however, when neem is needed, I will heed the quick application and never spray in hot weather. Plus, when I do spray, it's at dusk if not by the light of a full moon.

 smiling smiley

I think I will send some leaves off for foliar analysis and see what it comes back with this year. The new leaves are definitely spotted and I'd like to eliminate any problems not caused by my sprays (ie fungal or bacterial).

Joanne Patton, Squire Oaks Farm

Zone 6A, Northern Virginia

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[Joanne Patton](#)


[Re: Pears in the MidAtlantic](#)

October 01, 2016 02:52AM

Registered: 7 years ago
Posts: 62

I just received the results from Waypoint on my pear leaf submissions (at a cost of \$150!) and all it came back with is *Mycosphaella pyri* with no sign of bacterium. What I found most interesting is their recommendation of potassium bicarbonate (MilStop®) and the biofungicide *Bacillus subtilis* (Cease®). They also commented "this disease tends to be mostly cosmetic, but severe outbreaks can cause premature defoliation which can impact fruit quality if the problem occurs well before fruit maturation".

Any thoughts on this in the context of holistic orcharding? From first glance, could Cease be a "good" fungicide or is that an oxymoron?

 smiling smiley

Thanks!

Joanne Patton, Squire Oaks Farm

Zone 6A, Northern Virginia

[Reply](#) [Quote](#)

[Paul Weir](#)

[Re: Pears in the MidAtlantic](#)

January 03, 2017 11:20PM

Registered: 11 years ago
Posts: 187

Hi Joanne,

If any product is deemed a fungicide, it can very well take out the good fungi with the bad . . . keep this in mind. Up in the Pear canopy, this may not be such an issue, but typically, our sprays also tend to be over sprayed into and onto the ground around the trees too, so there is potential for collateral damage.

***Bacillus subtilis* is a bioantagonist bacteria** which is used as a competitive colonizer that both takes up space, leaving less room for others, and for which byproducts are produced that go on to inhibit and/or retard the growth of fungi that come into contact with these bacteria. The strain used in Cease (and the more well known Serenade) product is proprietary and has broad claims of success

Here is a cut & paste of a good number of diseases that are claimed to be countered by *B. subtilis*

Anthrachnose (*Colletotrichum* spp.)

Bacteria (*Erwinia* spp, *Pseudomonas* spp, *Xanthomonas* spp.) -- ***this group catches my interest and excitement most***

Bacterial Leaf Blight (*Xanthomonas campestris*)

Bacterial Speck (*Pseudomonas syringae* pv. tomato)

Bacterial Spot (*Xanthomonas* spp.) - suppression

Black Mold (*Alternaria alternata*)

Black Root Rot/Black Crown Rot (*Alternaria* spp.)

Black Spot of Rose (*Diplocarpon rosea*)

Botrytis (*Botrytis* spp.)

Downy Mildew (*Bremia lactucae*, *Peronospora* spp., and *Plasmopara viticola*) - suppression

Early Blight (*Alternaria solani*) – suppression

Fire Blight (*Erwinia amylovora*) – suppression

Gray Mold (*Botrytis cinerea*)

Late Blight (*Phytophthora infestans*) – suppression

Leaf spots – (*Alternaria* spp, *Cercospora* spp., *Entomosporium* spp., *Helminthosporium* spp., *Myrothecium* spp., *Septoria* spp.)

Pin Rot (*Alternaria/Xanthomonas* complex) - suppression

Powdery Mildew (*Uncinula necator*, *Erysiphe* spp., *Sphaerotheca* spp., *Oidiopsis taurica*, *Leveillula taurica*, *Podosphaera leucotricha*, *Oidium* spp.,

Podosphaera spp.)

Scab (*Venturia* spp.) - suppression

Walnut Blight (*Xanthomonas campestris*)

Products like Cease have a place in the Holistic Orchardists toolbox and may be used if the situation deems it to be worthy of the effort. Sadly, for most of the diseases and pathogens, we encounter in our orchards, there are no silver bullets.

Continue to be cautious, considerate and deeply contemplative of your trees health and well being, Joanne. You are on your way to orcharding greatness! Cheers to your success in 2017!

[Gopher Hill Apples](#)

Zone 8 in California

[Reply](#) [Quote](#)

[Joanne Patton](#)

[Re: Pears in the MidAtlantic](#)

January 14, 2017 06:01AM

Hi Paul and Happy New Year!

Registered: 7 years ago

Posts: 62

I think I'm going to try Serenade, alternating with SilMatrix this year but not to the point of excessive runoff and not on all trees (as a test). I will also follow the core holistic spray scheduled. It's such a balancing act. I purchased some crab shells for their calcium boost and I want to see how that affects the honeycrisp trees. I also have comfrey I can add to the mix.

I had incredible results last year with Inocucor on my veggies, especially monstrous lettuce - a 3 1/2 pound head of romaine lettuce! It was amazing. I'm going to use it again this year on everything, in addition to the EM1 mix.

Joanne Patton, Squire Oaks Farm

Zone 6A, Northern Virginia

Edited 1 time(s). Last edit at 01/15/2017 02:20AM by Joanne Patton.

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