



Marssonina 2019

Posted by [Brian Caldwell](#)

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[Brian Caldwell](#)

[Marssonina 2019](#)

January 18, 2020 03:43AM

Registered: 10 years ago

Posts: 69

In central NYS, we are experiencing a new disease problem. It is called Marssonina blotch and is not really new; it has probably been around at low levels for many years. However, two very wet springs in a row have allowed it to become very noticeable. Wild trees and unsprayed ornamental crabapples were heavily defoliated by late summer. More to the point, some defoliation was also apparent in our organic orchard. We also saw Marssonina spots on fruit, evidently the first time this has been reported in NYS.

[[extension.psu.edu](#)]

The upshot of this is that our organic low spray scab program, based mostly on sprays of bicarbonate, Silmatrix, and Regalia, switching to sulfur from pink through bloom, does not control Marssonina very well. Straight sulfur programs have shown similar lack. In Europe, copper has been a bit more effective, but still not great.

The good news is that the fruit spots do not get much worse in storage. They are not "dry" like scab lesions, but they progress very slowly. So next year if we have them, we will grade mild cases as "utility" and not cider grade.

My hope is that if we have a drier spring this year, Marssonina will not be bad. We will probably add some Cueva copper into our spray program as well.

[Hemlock Grove Farm](#)

Zone 5 in New York

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[Brittany Kordick](#)

[Re: Marssonina 2019](#)

January 18, 2020 06:33PM

Registered: 4 years ago

Posts: 209

In our rural area of NC, we see a lot of large apple "yard" trees -- usually singular, older, larger trees that are not well maintained. While they never look that hot, during the summer months of 2019, we noticed that most of these were almost completely defoliated, which was unusual. We did not experience this defoliation in our orchard, but since we weren't looking for it, can't swear Marssonina wasn't there in some respect. In September, our extension service put out a bulletin about Marssonina Leaf Blotch, dun, dun, DUN, and we suspect this is what was responsible for what we were seeing in those regional yard trees, most of which would not have had the benefit of any spray support whatsoever.

Here is a link to the NC State bulletin. No relevance to most of us as far as spray options, but does have very good pictures and info about the condition in general. Enjoy (and beware)!

[[apples.ces.ncsu.edu](#)]

[Kordick Family Farm](#)

Westfield, NC

Zone 7a

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[Glenn Aldridge](#)

[Re: Marssonina 2019](#)

February 06, 2020 03:33AM

Registered: 6 years ago

Posts: 8

Wow

Thank you Brian and Brittany. Also thanks to NC State. I'm on Long Island, caretaking a small community orchard. I also had severe defoliation this past late summer/early fall. I had thought it was powdery mildew, but now I think it was Marssonina.. I had no idea until your posts... I have been considering using a (new to me) botanical fungicide called EcoSwing. Has anyone had any experience with this fungicide?

Glenn Aldridge

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[Mike Biltonen](#)

[Re: Marssonina 2019](#)

February 06, 2020 09:47PM

Registered: 10 years ago

Posts: 298

Hi Glenn,

Apart from the fact that Ecoswing is not labeled for Marssonina, I plan on using it for Cedar Apple Rust and Scab in apples to a limited degree this year. I suspect - with no proof - that it will be mildly successful against Marssonina given that both scab and M are ascomycete fungal pathogens, albeit with different life cycle timings. Again, there is not any data I am aware of, but using it starting at tight cluster to mid-July for CAR and PM (on label) could yield some favorable data/observations.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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[Glenn Aldridge](#)

[Re: Marssonina 2019](#)

February 06, 2020 11:08PM

Thanks very much Mike!

Registered: 6 years ago

Posts: 8

Great to hear your advice. At this point, I'm deciding whether to use Cueva or Ecoswing. I'm starting to think I could do half and half so that we get some idea of what works. I'm still blown away that I had no idea that Marssonina was my problem - for the past several years! Thanks to this forum, and its generous contributors, I have been made aware.

Glenn Aldridge

Long Island - Zone 7

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[Brittany Kordick](#)

[Re: Marssonina 2019](#)

February 11, 2020 02:16AM

Registered: 4 years ago

Posts: 209

I just got back from our annual "Winter Fruit School" for regional growers, and Marssonina was a hot topic, with several area growers (all conventional) reporting that they think may have experienced some damage last year. In a previous post, I stated that I didn't think we experienced any Marssonina damage in 2019, but will have to amend that now. The back story: last June, we started noticing distinctive discoloration on select leaves from a handful of varieties in our orchard. I have a background in vegetable production, so am very familiar with mosaic viruses, and without knowing that there was an Apple Mosaic Virus, the damage looked very mosaic-like to me. We considered deficiencies, but really didn't think there was evidence to support that . . . and visually, it looked like textbook Apple Mosaic Virus, though, since we grafted all of our trees ten years ago on what we believe to have been clean rootstock, and haven't seen this before 2019, it did seem improbable that it was.

One lone extension agent from VA, when asked to id a leaf sample in person, without any preface from me of my theory, said, "You're not going to like this, but I think this is Apple Mosaic Virus." Afterwards, we pushed our NC extension service to help us definitively identify it and they were very dismissive ("It must have been one of those crazy organic sprays you all do that's just burned the leaves"). We eventually got some samples tested and they came back negative for Apple Mosaic, though there were two other viruses in very minor evidence, but not on all the samples, so didn't seem to be the source of the discoloration.

Well, today during the Marssonina slideshow, given, it so happened, by one of the extension agents who "assisted" us with our leaf discoloration quest last year, I was struck by one of the pictures -- it looked very much like the late stages of what we originally thought was apple mosaic virus. I chatted with the extension agent afterwards, and now she thinks I may be right, that we were experiencing Marssonina in some respect last year. It wasn't even on her radar until late summer, so never occurred to her at the time. But it makes sense from a timing standpoint, the fact that very few of our 150 heirloom varieties were affected (she stated that, so far, she has seen few heirloom varieties affected in general compared to the more mainstream varieties), and that we went on to lose about 50% of our leaves on affected trees.

Now for the good news: having boned up a little over the past few months, she advised growers to control Marssonina as they would apple scab for now. It has a similar life cycle; the bloom/early cover period is when trees are most vulnerable; the best way to control it is to get rid of that overwintered leaf litter. Of course, there were conventional sprays she recommended if growers want to go that route, but for the moment, they're advising to just suck up some light leaf drop and trust that some of the conventional fungicides used for treatment of other diseases will take care of Marssonina, as well.

She mentioned that, while there is a chance that Marssonina could become the next Glomerella for Southern growers, particularly based on the rapid incident rate seemingly out of nowhere, they haven't really seen it manifest on fruit down here yet, so they're just keeping an eye on it and not aggressively treating for the moment. She reiterated that 'Rome Beauty' apples appear particularly susceptible. She stated that Marssonina looks a lot like Frog-Eye Leaf Spot starting out, but it shows up later (June-July down south).

I will try and dig out our photos of affected leaves from last year and post them here, with the caveat that I don't know if they really are Marssonina, just a new hunch. Only three varieties were affected in our 10 acre orchard, and the blocks are nowhere near each other: 'Baldwin,' 'Bramley,' and 'Ashmead's Kernel.'

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[Mike Biltonen](#)

[Re: Marssonina 2019](#)

February 11, 2020 05:18AM

Registered: 10 years ago

Posts: 298

Lots of interesting stuff here. Thanks for posting. I have to disagree though with the approach "treat it like scab." It is the same fungal class - ascomycete - but the timing and life cycles are different. The infection period starts later and lasts longer - more like European scab. The time from infection to symptom is 45 days compared to 16 days (all estimated and can vary slightly). Also, since Marssonina has numerous forest species hosts - and scab only has a few - there are far more places where it can emanate than apple scab. We need to be aware that M can be infectious much later and far more problematic than scab. There are no fungicides currently labeled (of any type) for M - and not all scab fungicides appear to be more than peripherally effective on M as compared to scab. This is a new disease (relatively speaking) and I believe is way too simplistic to say "just treat it like scab." The most important thing is to remember that it can come in from a number of forest species, so just keeping the inoculum low in your orchards is on a minor part of the overall program. I am personally, and for my growers, trying to maintain a robust beneficial fungal environment, keep all resistance pathways kicking at high gear, and use any allopathic treatments at a minimum, and only as needed. Trying new fungicides like Ecoswing, acidific clays, and variations on Bacillus spp. fungicides in concert is likely the best protective approach after CC and ISR.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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[Brian Caldwell](#)

Re: Marssonina 2019

February 11, 2020 06:39PM

Registered: 10 years ago

Posts: 69

I agree with Mike. I think we had a gap in our spray schedule focused on scab and sooty blotch that helped Marssonina get going--we applied no fungicides between 5/22 (end of primary scab) and 7/1 (start of biweekly SBFS sprays). M probably got a foothold then.

That said, our spray program definitely reduced M compared to unsprayed trees.

Brittany, Marssonina symptoms on our Baldwin trees looked very much like a mosaic to me too.

Mike, where can we get acidic clays and what is CC?

[Hemlock Grove Farm](#)

Zone 5 in New York

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