



Did that spray work?

Posted by [Joanne Patton](#)

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[Joanne Patton](#)

[Did that spray work?](#)

January 14, 2017 06:23PM

Registered: 7 years ago

Posts: 62

Last year it seemed that within a few hours of a holistic spray mother nature was determined to undermine my efforts and opened up the skies with a nice long soaking, UNFORECASTED, rain! After spending a month activating my EM's and carefully measuring out all the ingredients, it was disheartening (to say the least) to have *everything* seemingly washed off the trees that I so carefully and completely covered with holistic spray #1 or #2 or #3 or #4 !

If this happens again this year, should I respray at first chance or stick to the spray schedule? It's expensive to have to keep respraying but it's more expensive to lose all fruit due to excessive rains and the plethora of fungal problems that followed, which is what happened in 2016.

Would love to know your thoughts!

Many thanks in advance,

Joanne Patton, Squire Oaks Farm

Zone 6A, Northern Virginia

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[Michael Phillips](#)

[Re: Did that spray take?](#)

January 15, 2017 04:46PM

Moderator

Registered: 11 years ago

Posts: 621

Just to be clear, this discussion seems to point to "**effective spray parameters**" rather than taking on the much broader topic of efficacy of particular materials against certain pests or disease events.

The holistic approach at its core emphasizes nutritional and biological factors. Leaving aside the fact that organic pest products like kaolin clay and *Bacillus thuringiensis* truly need to hold fast to the leaf surface, this means we should be thinking differently about how holistic apps achieve maximum *Oomph*! Most growers are familiar with the concept of early morning as being a more "absorptive time" with respect to foliar uptake of nutrients. The same could be said for a late afternoon spray that abides through the night on both sides of the leaf for the predawn hours. Cooler conditions prevail and so stomata are that much more receptive to taking in certain minerals prior to the hot afternoon sun shutting transpiration processes down. (I'm going to flip this limited view of so-called *foliar feeding* on its head in [Mycorrhizal Planet](#) but let's proceed regardless.) The virtue of fatty acids as found in pure neem oil and liquid fish work in our favor by readily adhering to the waxy cuticle. An unexpected shower does not wash away this goodness all that readily. The microbes in a holistic app equally have many crevices in which to set up shop and change pathogen prospects. Simply "seeing" the microscopic receptivity of the leaf surface already answers this question on a blunt level.

Yet seaweed and the fatty acids and reinforcement biology are much more than a surface treatment. And this is where we really need to start thinking more deeply. One of the underlying purposes of **holistic spray elicitors** (which all the core ingredients are, so embrace this term) is to stimulate the immune response of the tree. Phytochemistry is what drives healthy plant metabolism. The system hums when the sun shines. Photosynthesis drives up the brix while at the same time increasing levels of resistance metabolites. Every holistic application needs to be understood in this fundamental way. Allot for a day or two of bright sunshine before an infection event, and our trees will be primed to the max. A lead-in time of 24 to 36 hours sets the stage for 7 to 10 days of **green immune function** at its strongest. This goes so beyond conventional thinking in terms of sticking spray materials or even getting sulfur in solution to counter pathogen enzymes.

We changed the paradigm so think in terms of that deeper paradigm.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

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[Tim Bates](#)

[Re: Did that spray work?](#)

January 22, 2017 11:38PM

Registered: 11 years ago

Posts: 58

Well, a nice new twist on explaining how it all works, Michael. But for me 2016 is a quaking in my boots experience I hope never to repeat. It seemed nothing could stem the tide of scab I got last year---worst ever by far. See the beginnings of my woes in Fungal Pathogens under [secondary infection strategies](#). Would that we have 2 days of sunshine coinciding with sprays 1-4 and potential rain events, not very often here in California. I am dismayed for sure and feel for you Joanne. I will probably bring in the sulfur guns in at least some of my orchard this season. Will write more in Scab Conundrums in the next short while and try to develop a "plan" for 2017.

[The Apple Farm](#)

Zone 8b in California

Edited 1 time(s). Last edit at 01/23/2017 03:37PM by Michael Phillips.

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[Michael Phillips](#)

[Re: Did that spray work?](#)

January 23, 2017 04:06PM

Moderator

Registered: 11 years ago

Posts: 621

The veritable Mr. Bates awakens! A sure sign of spring, indeed, when Tim's scab radar comes back on. I will stand by this efficacy statement that a day of two of sunshine helps maximize the oomph of holistic sprays. Just as I recognize (in those other posts) that some rainfall events might best be navigated with a touch of sulfur. Nor are weather patterns the sole consideration when it comes to fungal pathogens. Different strains of scab utilize different strategies in different bioregions. The conidia factor being one such challenge in warmer zones. Similarly, "healthy trees" have lipid reserves to get through an extended stretch of cloudy weather to a fuller (or lesser) degree in different growing seasons. *The fungal dance will always be with us!*. Commercial growers cannot lose sight of how to fine tune spray timing for maximum effectiveness . . . and yet so many of us don't track all these factors so as to have a pulse when more (or less) attention is needed. Year after year I keep much the same "scab log" (as found in revised *Apple Grower* on page 187) to be able to see the patterns woven into any given season, both in terms of disease pressure and healthy plant metabolism. It's the long view that ultimately gives us the perspective to determine if "that spray worked" and subsequently recognize when we need to up our game (or not) in the next totally unpredictable round of life.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

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

[Joanne Patton](#)

[Re: Did that spray work?](#)

January 26, 2017 10:24PM

Registered: 7 years ago

Posts: 62

Winter 2017 in Northern Virginia certainly qualifies for unpredictable. 60 degrees yesterday and today. Last year at this time we had 3' of snow on the ground. If this keeps up, my trees will be blooming in March again only to be blasted by temps in the low 20s.

I can't take this "winter" weather roller coaster.

Off to read about Tim's secondary scab conundrums...

Joanne Patton, Squire Oaks Farm

Zone 6A, Northern Virginia

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