



Overlap of oils with sulfur

Posted by [Joanne Patton](#)

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[Joanne Patton](#)

[Overlap of oils with sulfur](#)

April 05, 2017 02:52AM

April showers bring May flowers, or scab or rust or mildew.

Registered: 7 years ago

Posts: 62

I bought a big back of micronized sulfur but I'm not supposed to use oils (neem, karanja, etc) within 14-21 days. Wanting to stay on track with my holistic sprays has been made impossible with this guidance.

How do you manage sulfur sprays (even if used infrequently) when surely a spring holistic spray would be needed within that 14-21 day window?

Thanks!

Joanne Patton, Squire Oaks Farm

Zone 6A, Northern Virginia

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

[Michael Phillips](#)

[Re: Overlap of oils with sulfur](#)

April 05, 2017 03:03PM

Moderator

Registered: 11 years ago

Posts: 621

This long-standing tenet is all about **russetting** for which there are many riffs. I'm glad you brought this concern to the fore, Joanne, as it would be good to hear a range of actual experience in this thread.

Way back, it was noted that a petroleum-based dormant oil followed by sulfur within 30 days increased russetting. That set an impossible stage for a fledgling grower like myself in the early 90s . . . and soon I would come to question many aspects of *conventional organics*. Truth is sulfur alone can cause russetting. Same for fixed copper (which incidentally is applied with oil to help spread mineral particles) when used much beyond green tip. Same for copper soaps if conditions go awry. Same for "biological fats" in a straight up holistic program, primarily neem oil. Much depends on the cultivar and temperature. One thing worth pondering is how bad is a degree of russetting of fruit skin in order to check disease pressure? John Bunker of Fedco Trees has told me about studies showing that fruit brix goes up under russetting . . . thereby flipping this conversation entirely on its head.

Transition scenarios and drawn out cloudy weather can call for a mix of thoughtful approaches. Playing the sulfur card for big wetting events while at the same time keeping up plant immune function and competitive colonization with holistic sprays is a reasonable course of action in my opinion. Those health-focused apps are timed ideally to boost phytochemistry while the sun still shines (a day if not two before grayer weather moves in). Now say a rainy period begins. Are you trying to use sulfur proactively as well, before the leaves get wet? Or are you timing the allopathic app to acidify moisture puddles on the leaf midway? Who's done what? And most importantly, how was the **fruit finish** come harvest?

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

Edited 1 time(s). Last edit at 04/05/2017 11:43PM by Michael Phillips.

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

[Nathaniel Bouman](#)

[Re: Overlap of oils with sulfur](#)

April 08, 2019 09:54PM

Registered: 9 years ago

Posts: 81

So, if I'm understanding this the prohibition on overlapping oils and sulfur is primarily about cosmetic damage to the fruit?

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

[Reply Quote](#)

[Mike Biltonen](#)

[Re: Overlap of oils with sulfur](#)

April 08, 2019 10:51PM

Registered: 11 years ago

Posts: 298

Applying sulfur and oils within 7 days of each other may lead to fruit russetting, but more importantly it can lead to foliar tissue damage. However, will it decimate your trees or your crop? The answer is: it depends on the timing. As we know, lime sulfur (calcium polysulfide and oil) is an effective blossom thinner because it is caustic and burns the petals when used appropriately. It also reduces Pn and can affect tree growth and fruit development - and this is how it thins fruit after fruit set. I suppose at high enough rates under the wrong conditions (e.g., very hot) it could defoliate a tree. I never seen it, but I am also very cautious about using sulfur and oil close together. At dormant or delayed dormant or even silver tip, I suppose oil and sulfur applied together or in close timing is theoretically safe, but not something I would recommend. So, if applied together or in close temporal proximity or near frosts/freezes, sulfur and oil can cause problems from unintended fruit thinning, blossom thinning, foliar burn, defoliation, and even tree death. But used properly and with appropriate cautions, there shouldn't be any issues at all. *These are not recommendations, shouldn't be considered strong suggestions or even hints without professional assessment of YOUR conditions which requires a site visit or personal conversation.*

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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[Nathaniel Bouman](#)

[Re: Overlap of oils with sulfur](#)

April 29, 2019 12:18AM

Registered: 9 years ago

Posts: 81

Last week I did a holistic spray, which included .5% neem. The next day I sprayed micronized sulfur. 10lbs per 100 gallons. I decided to gamble on it because we were about to get a huge rain and I knew I wouldn't be able to get sulfur on after the rain. The trees were between 1/2" green and pink. It was cool--high forties/low fifties. Partly sunny.

It's now four days since I sprayed the sulfur and there is no apparent foliar damage on any of the varieties yet. The varieties showing significant green were: Hewes Crab, Golden Russet, Ashmead's Kernel, Harrison and Domaine.

I'll post if I see any damage within the next few days.

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

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[Mike Biltonen](#)

[Re: Overlap of oils with sulfur](#)

April 29, 2019 01:36AM

Registered: 11 years ago

Posts: 298

This is very interesting and something I have wondered about. Given that neem is a seed oil and almost all precautions are for the use of petroleum or mineral oils, I guess I am not all that surprised with your ad hoc results. As well, 0.5% is pretty low rate of oil and sulfur isn't low, but certainly not full label rate. I would be interesting to see if 1% or 2% neem plus sulfur gave similar results. Anyway, keep us updated and let us know if there are any changes or concerns.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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[Nathaniel Bouman](#)

[Re: Overlap of oils with sulfur](#)

April 13, 2020 11:46PM

Registered: 9 years ago

Posts: 81

Well, I believe I get a phytotoxic response to doing sulfur one day and neem oil the next. As I mentioned in my post above, there were no immediate signs of phytotoxicity. It was only a few weeks later that things seemed off. Leaves were small and dry looking on Ashmeads and some Hewes. Similar impact on other varieties but less pronounced. I won't do that again.

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

[Reply Quote](#)

[Karen Brindle](#)

[Re: Overlap of oils with sulfur](#)

April 13, 2021 07:39PM

Registered: 9 years ago

Posts: 103

I can't see a consensus in the timing in this discussion except to NOT follow sulfur closely with a neem mix. I need to do a sulfur spray for black rot, early trees are at tight cluster and we have a week or a little more of dry weather. Growth is about to accelerate. I'm thinking do sulfur now, in the evening, and do holistic spray (EM, fish, kelp, neem/karanja) in a week right before rain. I'm not concerned with russetting, only disease knock down. Opinions Please?

[Vista Ridge Orchard](#)

Zone 8a in Washington

235 Cider and heritage apple trees, 72 varieties,

[Reply Quote](#)

[Charlie Showers](#)

[Re: Overlap of oils with sulfur](#)

September 29, 2023 01:06AM

Registered: 2 years ago

Posts: 18

Following on from previous discussions on overlapping micronised sulphur sprays with oils, does anyone have any information on either spraying sulphur with fish hydrolysate (i.e. in the same tank) or if that is potentially too risky then at least spraying within a week of each other?

Our label rate for 80% wettable/micronised sulphur in Australia is 200g/100 litres which is the equivalent of 1.6 lbs / 100 gallons, which seems very low compared to USA usage.

I would look to put the fish out at 1 litres / 100 litres. I have always fertigated my fish over spring however I would like to apply as a foliar but I am mindful of issues with sulphur.

Thanks to my USA counterparts for any feedback!

[Black Barn Farm](#)

Zone 8b in Victoria, Australia

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[Mike Biltonen](#)

[Re: Overlap of oils with sulfur](#)

September 29, 2023 01:40PM

Registered: 11 years ago

Posts: 298

Hi Charlie,

The devil is in the details as they say. With a very low rate of sulfur as you suggest, I doubt you'll see any fruit phytotoxicity/russetting when applied with most non-petroleum oils (unless applied at bloom in which case you might get some blossom thinning). Nonetheless, and since each situation is unique, I'd approach it like this:

- mix small amount of materials you want to spray and apply to a lone branch or fruit and watch results
- sulfur and 6E petroleum oils (dormant) should adhere to cautions mentioned here and on labels.
- sulfur and refined stilet oils, test first, but lower rates of both shouldn't be a problem
- sulfur and seed oils - shouldn't be an issue esp at lower rates
- sulfur and other oil-based products (e.g., Thymeguard) shouldn't be an issue according to manufacturer's tech advice (we called). Manufacturer's usually have already done these tests.

- weather is always a factor (slow drying vs fast drying, hot vs cool, etc). The longer it takes to dry or the hotter it is, the more likely there will be damage of some sort.

- some varieties may be more susceptible to damage than others.

Make sure its not the other product that's causing the product. everything is rate dependent. Everything dependent on stage of growth (e.g., tender new growth or blossoms vs mature growth and developing fruit). Everything is dependent on the oil source.

Fish hydrosylate contains mostly protein and about 5% oil. Thyme Guard is 23% thyme oil. Cinnerate is 60% cinnamon oil. But these are all different types of oils and so will react differently with different products. Always best to call the manufacturer and/or do the small test I suggested above.

But to REALLY answer the question.....I applied fish hydrosylate (1 oz./gall H2O or 29 ml/3.8 L) with many different products this year (but not sulfur) and had the best looking leaves I've ever had (so no damage done). I wouldn't worry too much about fish and sulfur, esp at the low rates you mentioned. And esp if you space out the two materials by one week.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

[Reply Quote](#)

[Charlie Showers](#)

[Re: Overlap of oils with sulfur](#)

October 01, 2023 10:33PM

Registered: 2 years ago

Posts: 18

Thanks Mike for your very thorough response, much appreciated. I'll test a small section to be safe and then press on.

I am actually surprised with the label rate differences for sulphur between Australia and the USA. According to rimpro apple scab isn't as aggressive in the USA (which seems like a sweeping statement given possible continental scale variations) so I would have expected the opposite.

[Reply Quote](#)

[Josh Willis](#)

[Re: Overlap of oils with sulfur](#)

October 17, 2023 08:44PM

Registered: 6 years ago

Posts: 134

Hi Karen,

To follow up on your comment from 2021, do you remember how that sulfur spray went? Did the timing work out? And just as importantly, was it effective on the black rot? I am looking at the exact same issue here. Trying to reduce black rot and alternaria, ag extension recommended Sulfur, and I'm trying to see how that fits alongside Holistic sprays in Spring 1-4 and Comps.

Thanks.

Earthworks

Zone 7a in West-Central MD

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

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

[Mike Biltonen](#)

[Re: Overlap of oils with sulfur](#)

October 19, 2023 03:30PM

Registered: 11 years ago

Posts: 298

I came across [this article](#) that suggests that lower doses of sulfur are just as effective as higher doses of sulfur for PM in grapes. We're probably overapplying lots of things including sulfur. I've been working with lower doses of other similar products and see some success without the damage you get when applied with or near oils.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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