



Using whey as a fungicide

Posted by [Mark Forstrom](#)[Forum List](#) [Message List](#) [New Topic](#)[Mark Forstrom](#)[Using whey as a fungicide](#)

February 26, 2023 12:55AM

Registered: 1 year ago

Posts: 16

Trying to get all my spray material together for the coming season. My only teacher is here and YouTube. Saw a video with Stefan Sobkowiak in Quebec and he has been using only whey since 1997 as a fungicide and foliar feeder for calcium. He uses it straight with no dilution. Sounds like a very strong application. He says others dilute it and have good results. I think I'm going to have at least 2 sources of whey from grass fed raw milk cheese makers, wondering if anyone has used it here? Michael used raw milk in his compost teas and spoke of using whey also. Any feedback would be much appreciated.

[Reply Quote](#)[Prairie Sundance](#)[Re: Using whey as a fungicide](#)

February 26, 2023 05:02AM

Registered: 2 years ago

Posts: 47

I use whey whenever we have it from our home cheesemaking and believe in it, but have little data that would be considered scientific. It is something I'll likely try to source from local cheesemakers as we grow, is anyone else using whey and how is it working for you?

[Reply Quote](#)[Todd Parlo](#)[Re: Using whey as a fungicide](#)

February 26, 2023 11:01PM

Registered: 10 years ago

Posts: 301

The efficacy of whey is going to depend on what disease you are addressing. The evidence for its effectiveness sits in the camp of less virulent characters. For instance there are reports of protection against mildews. An Australian study showed effect against powdery mildew in grapes, where both whey and whole milk mixtures damaged hyphae and conidia. Milk (at 1:10 dilution) was as effective as whey mixes (whey powder at 30g/L and lactoferrin at 20g/L). That study also gauged hydrogen peroxide (0.1 %) which had comparable effectiveness against hyphae but poorer than the milk products against conidia). However, a comprehensive University of Vermont study showed no improvement against apple diseases compared to controls, and sadly had GREATER instance of disease almost across the board. Clearly more research is needed. Something like this is an easy task for our group to trial and report results- the products are easily obtained and only requires good record keeping.

[Reply Quote](#)[Mark Forstrom](#)[Re: Using whey as a fungicide](#)

February 26, 2023 11:58PM

Registered: 1 year ago

Posts: 16

Thanks for the info Todd, very interesting stuff. What I was hoping it might help with was brown rot on our peaches, it's really bad here. Might give it a try anyway and will report back. We only have 6 peaches, so I'll hit 3 with whey and 3 with sulfur when needed. Would like to do other varieties also with the same type of comparison. I also recently saw somewhere that curculio has a big effect spreading brown rot on peaches. Hopefully we can get them under control better this year as per Mike Biltonen's spray suggestions. Any suggestions are appreciated.

[Reply Quote](#)[Todd Parlo](#)[Re: Using whey as a fungicide](#)

February 27, 2023 05:33PM

Registered: 10 years ago

Posts: 301

For brown rot specifically (*Monilinia fructicola*), there are studies that show favorable results using whey. An example is a 2021 study (Journal of the South Carolina Academy of Science) that centered on spore reduction (conidia). This was a carefully controlled lab experiment, not a field study. It showed a 90 percent reduction in spore load (and better) from whey. They also found whole milk powder and neem to be equally effective.

Important is the consideration of the entire brown rot cycle. We can get into the weeds in a specific brown rot thread, but let's look quickly at the cycle. It begins with spore release and infection of blooms. Often this goes unnoticed, and the grower only becomes aware of the disease when fruit is unsightly. We will typically have bloom infection, canker development, further spore release and then fruit infection. Now, the fruit is often infected by conidia in damaged fruit (ie Mark's comment on curculio stings). However, fruit too can be infected through other damage, and more importantly via stomata and directly through the cuticle. Damage and insect attack just make it worse. What this means is that providing protection with whey, or what-have-you needs to be begin early and likely continuous to have effect.

[Reply Quote](#)[Mark Forstrom](#)

Registered: 1 year ago

Posts: 16

[Re: Using whey as a fungicide](#)

February 27, 2023 08:58PM

Thanks again Todd for the info. Being as "green" as a comfrey leaf doing this, should the whey be sprayed by itself, or do you think it can be combined with the core holistic mix? I'm thinking no. I have not used sulfur yet in the 2 years I've been trying to manage this small orchard (45 trees), but was thinking maybe I should early, to knock down disease in the twigs and bark on the trees? Would prefer to do early sprays of whey, sounds like it might work if I keep on it.

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[Todd Parlo](#)

[Re: Using whey as a fungicide](#)

February 28, 2023 01:46AM

Registered: 10 years ago

Posts: 301

My advice first is to make yourself familiar with all stages and effects of the disease cycle so you can keep tabs on your progress. This will get you out there where you are likely to dispose of mummified fruit, identify and remove cankers, etc. You are going to have some success just by having a plan in place. Tank mixing whey or milk isn't going to cause problems with a typical holistic mix. It'll lean lower in pH so bt can be added when called for as well. Because there are mixed reviews about whey as a fungicide, especially with impact on other pathogens, you may want to mix it up with separate sprays. Neem, potassium bicarb, hydrogen peroxide all have at least some effect. I would also make an honest assessment of how bad things are in the trees and surrounding area. You may be fine with a plan like this but if there is a severe buildup of pathogen you may consider a year program of heavier hitters (ie sulfur, lime sulfur, copper) to get things back in line.

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[Mark Forstrom](#)

[Re: Using whey as a fungicide](#)

February 28, 2023 05:13PM

Registered: 1 year ago

Posts: 16

Thanks for all the advice Todd, it's a big help to us. I'll do a fair share of experimenting here and report back with the results.

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