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Spreading lime on apple leaves in fall for scab prevention

Posted by Peter Drevniok

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Peter Drevniok

Spreading lime on apple leaves in fall for scab prevention

November 15, 2016 11:01PM

Hi.

When spreading lime on leaves that have fallen which form of lime are we talking about exactly? My local store has pelleted lime which seems useless for this purpose or hydrated lime which is a fine powder. But using hydrated lime scares me a little due to the fine dust and caustic nature. Should I be using some other form of lime? Can someone advise on which form of lime is best please?

Peter Drevniok

Wakefield, Qc zone 4b

Reply Quote

Zea Sonnabend

Re: Spreading lime on apple leaves in fall for scab prevention

November 22, 2016 08:12AM

You need agricultural limestone, which is calcium carbonate. Dolomitic limestone might be okay too, if your soil is deficient in magnesium.

Fruitilicious Farm

Zone 9b in California

Reply Quote

Todd Parlo

Re: Spreading lime on apple leaves in fall for scab prevention

November 22, 2016 06:52PM

Perhaps this thread could investigate the efficacy and mode of action of lime in scab abatement. Most of what has been published anchors on pH adjustment to facilitate leaf decomposition. This means adding materials like urea or other nitrogen, compost, or manure as ammendments in fall to incourage leaf decomposition, are important. Those using sulfur applications in the year will be enticed into using more lime products. Also, spring applications may be helpful in some areas. The problem for cold areas are that leaf decomposition is likely not in the cards due to temperature and time limits before spore release in spring. This is why all of the above coupled with leaf mowing or leaf removal is often advised.

The hydrated lime (slaked lime) has been used for eons for soil remediation. This is calcium hydroxide, and will adjust pH better (about 20 % more effective) than the regular agricultural lime (calcium carbonate), but indeed can irritate your eyes and skin. Also, since it is finer (this is really builder's lime), it can get all over you, but I am sure you can make adjustments for this.

I try to make use of wood ash, as it is sustainable and free for me, and as you can imagine is particularly fine and lofty, so I apply on a calm damp day.

It does stand to reason that finer particles of caustic materials like lime and lye are going to affect the organism, and smaller particles due to higher surface area will work faster in pH adjustment. It will also, however wash more quickly and leach, so a coarser material might be warranted, additionally, for a longer window of effectiveness.

Walden Heights Nursery & Orchard

Zone 3 in Vermont

Edited 1 time(s). Last edit at 11/22/2016 09:22PM by Todd Parlo.

Reply Quote

Michael Phillips

Re: research on use of lime for scab

November 23, 2016 10:41PM

Moderator

Registered: 11 years ago

Posts: 621

The research on lime as a scab tool comes out of Oregon State University . . . but I'm going to cop out of finding it right now and simply say it's in the book . . . as in an endnote in <u>Apple Grower</u>. The idea here is that altered pH on the surface of the fallen leaf makes it less likely that the two mating types of the scab fungus will successfully do "the thing" that launches *pseudothecia*, being the ascospore sacs that mature at a varied pace throughout spring. Scab sex can happen on a late fall day or it may not take place until the last vestiges of snow disappear. Lime spread on first fallen leaves alters moisture pH on the leaf surface to prevent mating with purportedly 50 to 90% success. This recommendation makes sense when you are spreading a maintenance rate of lime for soil balance reasons anyway -- wait until leaves start falling and get more bang for your buck. Pelleted lime versus granulated powder is probably besides the point as all dissolves into solution in the moist environs of the orchard floor. Wood ash is certainly useful here in the same way provided you deter the fungal love before propositions are made. Further notions of *stirring the biological stew* include

mowing, the fall holistic spray to "butter up" all leaves for enhanced decomposition with fats, and spreading orchard compost.

And just to keep things interesting, do remember <u>The Conidia Divide</u> in warmer places where the launching pad for this disease shifts to bud scales on the tree itself. That conversation never took off but concerns more and more of us every year as overall warming becomes the norm. A delayed dormant spray of "lime sulfur" for conidia concerns represents an entirely different tack than what's being discussed here . . . which is why nuance is always great stuff!

Lost Nation Orchard

Zone 4b in New Hampshire

Edited 1 time(s). Last edit at 11/24/2016 02:09AM by Michael Phillips.

Reply Quote

Peter Drevniok

Re: Spreading lime on apple leaves in fall for scab prevention

October 22, 2018 05:45PM

Getting back to his topic:

I have tried to research how much hydrated lime to use per gallon of water in order to spray

but not finding anything concrete besides how to make a Bordeaux mixture.

However, does 10 tablespoons per gallon seem right? Or any other mixture rate will do and I can convert it.

Thanks.

Peter Drevniok Wakefield, Qc zone 4b <u>Reply Quote</u>

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Registered: 10 years ago

Posts: 31