



Search

[Advanced](#)

## Zinc!

Posted by [Nathaniel Bouman](#)

[Forum List](#) [Message List](#) [New Topic](#)

[Nathaniel Bouman](#)

[Zinc!](#)

September 01, 2021 09:58PM

Registered: 9 years ago

Posts: 81

I just got the results of a late (8/27) leaf analysis I did and it indicated that zinc levels were low or deficient. The pH of the soil is not high (it's a bit low) and neither are phosphorous levels. Zinc is the only mineral in our soils that test above the optimum--so it seems strange that it is deficient in the leaves. We've had a lot of rain this summer. Probably too much for our heavy soils. Could that be the culprit? Or maybe zinc is one of the first things to go as trees head toward fall?

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

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

[Michael Phillips](#)

[Re: Zinc!](#)

September 02, 2021 04:02PM

**Moderator**

Registered: 11 years ago

Posts: 621

Soil results for Zn are generally accurate whereas [plant sap](#) offers the most revealing analysis of all. Mineral ash via leaf tissue gives an indication of what's going on, however, I wouldn't take those results as gospel for this particular nutrient. Zinc should be supplemented if short of the mark but never pushed into excess as there will be repercussions on the manganese front.

Anyhow, I applied zinc sulfate this spring in my East block (based on marginal soil results) at a rate of 4 ounces per tree across a 6-8 foot radius. This amendment dissolves readily so a spray application to the ground is another means of getting this done. Sounds like this is not what you need, Nate, based on prior soil results.

Prime timing for a zinc foliar is when making a 'Spur Potential Spray' some 4 to 6 weeks before the trees actually go dormant. This in conjunction with calcium, manganese, and boron. Having sap results from around the time of terminal bud set is the basis by which I make the decision to include foliar zinc or not in this application. (I will be including a pint of Rebound-Zn in the north and east blocks but zinc levels look good in my south block so none in that tank mix.) There's a direct correlation between adequate Zn and good leaf size which is a more intuitive way of judging how things stand.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

Edited 1 time(s). Last edit at 09/02/2021 04:07PM by Michael Phillips.

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

[Nathaniel Bouman](#)

[Re: Zinc!](#)

September 03, 2021 05:35AM

Registered: 9 years ago

Posts: 81

These are really valuable insights as to how to confront a zinc deficiency but I'm just baffled as to how my soil tests show an abundant level of zinc--almost too much--and yet the leaves indicate that they are struggling with not getting enough zinc. They lack this mineral more than any other nutrient/mineral.

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

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

[Molly DellaRoman](#)

Registered: 5 years ago

Posts: 38

[Re: Zinc!](#)

February 17, 2022 01:08AM

huh, should have read this first. We just had the same discrepancy between or soil and leaf tests and I just made a new thread on it - along with other micronutrient discrepancies. I do appreciate Michael's response on timing and the suggestion of plant sap testing, which this is the first I am learning of that analysis. The results we received back from the lab suggested spraying Zn at tight cluster, 1st cover and third cover, which doesn't line up with what you are suggesting - thoughts?

5 Star Nursery and Orchard

Zone 5, Brooklin, ME

[Reply Quote](#)

[Michael Phillips](#)

[Re: Zinc!](#)

February 17, 2022 02:15AM

Traditionally Zn would be foliar applied with B in early spring. Zinc sulphate at bud swell to as late as tight cluster. Solutions of straight salts like zinc sulfate are not absorbed all that well and may produce phytotoxicity on foliage. Boron timing is continued (pink, petal fall) but not zinc unless you switch to a chelated form or a trace mineral tonic w/biology. With spur bearing crops like apple, sugars going into fruit development come from spur leaves... and there is a direct correlation between Zn and leaf size... and thus sugar production.

I prefer fall timing for foliar Zn (as stated above) just because there's a lot going on with nutrient pulsing in those weeks before bloom. Prompting the tree in too many directions at once doesn't necessary work as well as staggering certain foliar priorities. Zinc is one of two nutrients NOT TO APPLY when levels on plant sap analysis are already good (the other being potassium). The ground you lose by putting Zn into excess is with Mn, and I can't stress enough that having manganese available in reduced form is critical for healthy plant metabolism. The good news is that no oxidation shift occurs with zinc in the soil and thus why soil application is the best bet of all for this somewhat immobile nutrient.

You ask a very valid question about testing accuracy for each nutrient in another post, Molly. As regards zinc, soil numbers are generally accurate, a tissue report is somewhat accurate, and sap analysis tends to be spot on. *Let's just say it's complicated.*

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

Edited 1 time(s). Last edit at 02/17/2022 05:52PM by Michael Phillips.

[Reply Quote](#)

[Molly DellaRoman](#)

[Re: Zinc!](#)

February 17, 2022 09:11PM

Thank you - lots to consider as we start to hone in on micronutrients.

5 Star Nursery and Orchard

Zone 5, Brooklin, ME

[Reply Quote](#)

[Newer Topic Older Topic](#)

[Print View RSS](#)

Sorry, only registered users may post in this forum.

[Click here to login](#)

This [forum](#) is powered by [Phorum](#).

**Moderator**

Registered: 11 years ago

Posts: 621

Registered: 5 years ago

Posts: 38