



[Advanced](#)

Surround: beading and surface tension solutions

Posted by [Peter Fisher](#)

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

[Peter Fisher](#)

[Surround: beading and surface tension solutions](#)

June 07, 2017 12:56AM

Registered: 10 years ago

Posts: 82

I feel like I could get much better Surround coverage if it didn't bead up so much on the waxy apple surface. (I do not have an air blast sprayer; I am using a wand.) Beading up is due in part to surface tension. Apparently warm water has lower surface tension than cold, so I will try to let the sun warm the water first next time (sitting in pails, and in my 200' of hose). I could not determine from an internet search that soft water has lower surface tension than hard (I have pretty hard well water), so I don't know if the lemon juice solution for Neem has any applicability here. Rain water is softer than well water, so a rain barrel would be another good strategy if indeed hardness has anything to do with it. Finally, there is Dr. Bonner's soap. Soap is not only an emulsifier, but also reduces surface tension. Why not add some Dr. Bonner's to the tank of Surround? There may be a good reason not to, but I don't know what it is.

Turkey Creek Orchard

Solon, Iowa (zone 5A)

[Reply Quote](#)

[Michael Phillips](#)

[Re: Surround: beading and surface tension solutions](#)

June 07, 2017 01:26PM

Moderator

Registered: 11 years ago

Posts: 621

That sounds like good thinking well worth a try, Peter. I don't see how a little soap to break surface tension would lock on the kaolin clay particles. Oils will, which is why Surround apps are made separate from holistic apps with fish, neem, and karanja oils. A light touch of Therm-X, being the yucca sticker, might be okay. Full-strength stickers like NuFilm, however, would probably undo the mechanism by which clay flakes off to irritate curculio. The researchers at the USDA Appalachian Fruit Station in West Virginia who developed the Surround strategy did try sticking the clay with vegetable oil and found it to be much less effective.

I usually go with the 25# per 100 rate when applying Surround, this in misting fashion rather than to the point of runoff. It takes a few passes with a modicum of drying time in between to get the white effect in gear. Hitting the branch structure is just as important as leaves and fruitlet stems as curculio does a lot of crawling in its daily journey to fruit. Covering plums is even more challenging than apple, I find.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

[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](#).