



## the virtues of russeting

Posted by [Michael Phillips](#)

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[Michael Phillips](#)  
[the virtues of russeting](#)

September 11, 2017 04:02PM

**Moderator**

Registered: 11 years ago

Posts: 621

Let's turn our attention to russeted fruit. This isn't about "natural russets" like Roxbury Russet and Hudson's Golden Gem but rather fruit finish response to sprays and/or climatic influence. Garret kicked off this query in the [2017 scab review](#) thread where he reported about visiting my orchard in late August:

Quote

**Garret Miller**

I will also say that some part of Michael's fatty acid based, holistic spray program is causing some interesting russeting on non-russet varieties. Not sure if I understand the mode of action at work there, but I found it kind of beautiful. Both desirable as a cider maker (often better aromatics, drier, indicator of high brix) and a story-teller (aka direct marketer of fresh fruit)- "plant health you can see".

Red Gravenstein, Sweet Sixteen, and MacIntosh are among the varieties with a strong russeting response to the fatty acids (or something) in a holistic program. Not every apple, mind, but a hefty majority. I do seem to get less-affected fruit up high in the tree which suggests slower drying time plays a role here. Smooth redskin cultivars are subject to "fatty acid russeting" whereas many other varieties like Duchess, St. Lawrence, Bonkers, Mother, and Honeycrisp don't show this response whatsoever. That's one clue.

John Bunker of Fedco Trees told us at this spring's Berkshire Meeting about a researcher looking into how the russeting response was indicative of higher medicinal virtue in the fruit. This seconds Garret's observation as a cider maker. This makes sense, as outside stimulation of many sorts kicks in immune phytochemistry. Russeting viewed thusly is the visual manifestation of environmental reality at play. That's another clue.

Now one of you needs to add the next bit.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

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[Brian Caldwell](#)

[Re: the virtues of russeting](#)

September 30, 2017 05:14AM

Registered: 10 years ago

Posts: 69

We are also seeing russeting on those varieties. It is often netted and I wondered if it was powdery mildew. But I see it a lot on Akane which I've read is supposed to be resistant to PM. Also, I often find a drier, less waxy skin on our fruit, notably Jonagold and Golden Delicious.

I'm using the word "robust" to describe our apples.

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[Russ Martin](#)

[Re: the virtues of russeting](#)

November 21, 2017 06:43AM

Registered: 8 years ago

Posts: 19

I will a few comments. When I purchased my current property, it had two 40 year old Haralson trees. I used conventional sprays up to 2014 and started with holistic sprays and nutrition programs in 2015. I have always had very russeted Haralson apples. Conventional or holistic, it made no difference. This year I started paying attention to calcium in my sprays. I used comfrey teas plus I added limestone at 3-4 tablespoons of calcium carbonate, not dolomitic limestone, per 5 gallon pail comfrey tea. I still had some russet but it seemed significantly less. Maybe it was just this wet, wet, wet summer. I plan to continue fortifying comfrey teas next year to see if calcium reduces russeting in my orchard.

Has anyone had similar experience?

Russ Martin

Zone 4b Extreme west Central Wisconsin Hager City, WI

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[Michael Phillips](#)

[Re: the virtues of russetting](#)

November 23, 2017 06:49PM

**Moderator**

Registered: 11 years ago

Posts: 621

The calcium angle definitely rocks. Nutrient applications made from fruit set on are essential to growing beautiful fruit. Yet I have a feeling that russetting may kick in even sooner as a response to some *irritation* as buds unfurl and develop. Admittedly this conception may spring from warnings about separating horticultural oil and sulfur apps, as well as use of fixed copper beyond quarter-inch green, as noted causes of russetting. I can't really say if "russetting potential" is obvious to my eye when I'm hand thinning fruitlets . . . so it may well be a cumulative response taking place. The wetting factor is certainly another angle to think about, that somehow certain spray materials induce a greater russetting response if bud crevices don't dry out as quickly and/or temps are higher. That in turn makes me think about how good nutrition somehow counters that response. If the fatty acids in seed oils (neem, karanja) are indeed the holistic prompt involved here, the question remains *how*? Fatty acids rate right up there as an important nutrient resource too.

All this takes place on the cellular level, down beneath that waxy cuticle layer. Thinking along these lines makes me wonder if russetting is similar to how our epidermal cells express sunburn after a day in robust sun. Interestingly, my few Haralsons this season had a roguish red finish -- but no russetting -- this on young trees with plenty of airflow.

Glad you picked up the ball here, Russ. That's the beauty of ongoing discussion! I sure have more questions than answers in regards to how russetting initiates.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

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