



Scab severity index

Posted by [Claude Jolicoeur](#)

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[Claude Jolicoeur](#)

[Scab severity index](#)

September 27, 2013 05:52PM

Registered: 11 years ago

Posts: 226

This is something we had on the old Grou.ps forum, but hasn't been transported here yet...

The point is to be able to evaluate the severity of scab for a crop on an index of 0 to 5, thus permitting to compare year-to-year scab on same variety, and also to compare the crop from one variety with another.

Following is the way I do it - please others do contribute so we might end-up with a common way to asses scab damage. Maybe there is some other way to evaluate this from the literature, but I am not aware of it.

First, let's look at one apple. It may of one of the following classes:

Class A- essentially scab-free, but might have one minor lesion, say 3/8 inch or less or a few very small lesions (1/8 inch): This is an apple that you'll want to eat and it has full value at a farmer's market.

Class B- be somewhere intermediate between A and C: if you are hungry, you're try to find a nicer looking apple in the basket. You'd sell it low price as utility.

Class C- strongly attacked, meaning many large lesions, also often cracked on the lesions: you'd definitely choose another apple if you are hungry... You wouldn't even think of selling it.

When I grade my apples the A go to the eating basket if there is no other problem (e.g. insect), while B and C go to the press basket.

The scale I use for a given crop is as follows:

0 - No scab, all apples are class A.

1 - Most apples are A, with maybe 10% in classes B or C. This is still a quite nice looking crop.

2 - More than 60% of the apples apples are A, hence no more than 40% are B or C. This is still quite nice for someone like me who doesn't spray for scab and who can use the scabby apples for cider, but it's a failure for a grower who is marketing his/her apples.

3 - The crop is starting to look quite scabby. About the same quantity of scabby apples (B and C) as scab-free apples.

4- Most apples are B and C, with less than 40% in class A.

5- Scab has gone really wild, most apples are class C, with only a few B and no A.

[Jolicoeur Orchard](#)

Zone 4 in Quebec

Author, [The New Cider Maker's Handbook](#)

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

[Michael Phillips](#)

[Re: Scab severity index](#)

September 29, 2013 02:59AM

Moderator

Registered: 11 years ago

Posts: 621

My intentions with this *scab severity index* were not so much a grading report card of one's methods for scab control but far more to be able to account the degree of severity one faces in a given season regardless of where. That is the one and only context for then gauging the effectiveness of a particular method year after year. Take this growing season, here at Lost Nation Orchard, up in far northern New Hampshire. Six inches of rain over a six-day period during the latter half of bloom made for irresistible scab pressure in the primary infection window. Lessons were learned, that's always good, with the main point of contention being the use of pure neem oil during bloom (pollinator precautions, mon) and what to do otherwise. It gets better still ... if you happen to be a fungal pathogen. All of June and the first half of July basically amounted to continuous rain and/or continuous cloud cover throughout northern New England. Plants that thrive on photosynthesis not only stopped growing but basically shut down the photochemical pathway by which plants resist disease. Needless to say, secondary scab had a heyday on susceptible apple varieties. Pressure could not be more extreme.

How can we rate climatic factors in considering the success of various approaches? Wild marker trees (those not treated) seem to be key here ... this is where the scale of 1 to 5 should be correlated. Feral trees essentially are a bioregional marker by which to gauge scab severity in a given year, I think. Only then we can account for weather reality in fairly evaluating different approaches despite nature's perfect storms.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

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[Claude Jolicoeur](#)

[Re: Scab severity index](#)

September 30, 2013 01:21AM

Registered: 11 years ago

Posts: 226

For my part, I like to use this index for comparison of variety susceptibility in my untreated orchard. This is really only useful when observing data from a sufficient number of years. For example, McIntosh could be a 2 on a low pressure year and up to 5 on an extreme pressure year. This may be compared to Cortland, which could go from 1 to 4, or Wealthy, which can be 0 on a low pressure year, and up to 3 on some years, or Yellow Transparent which would never exceed 2.

Since Cortland constitutes a large fraction of my crop, I generally use the Cortland Index of a given year as an index of the global pressure for that particular year. But this is not always accurate, as other factors make different varieties behave differently under the same climatic conditions. For example, on a given year, Cortland may have an index of 3 and variety X may have an index of 1, but on the following year, there may be less scab on Cortland, say an index of 2, but more on variety X which could be a 3.

If using such an index for evaluation of treatment strategy, then as Michael says, some untreated susceptible trees would be needed for comparison. But on the other hand, it might not be a good idea to leave some trees untreated in your orchard, as these will act as a source or reservoir of inoculum...

Claude

[Jolicoeur Orchard](#)

Zone 4 in Quebec

Author, [The New Cider Maker's Handbook](#)

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[Tim Bates](#)

[Re: Scab severity index](#)

April 23, 2014 07:46PM

Registered: 11 years ago

Posts: 58

Well, Claude is definitely expressing what's been a real puzzler over the years. Some years the "scab magnets" come out clean and the somewhat resistant varieties show more than usual...especially this year where I've already had the perfect storm with around a week of continual wetness at prime infection time and boy did it ever show up. More puzzling is my 'load' from last year should have been relatively light. Will do a diatribe on that when the dust has settled--when I find out how much made to the fruit. Here, I was told by neighbors that McIntosh always gets scab, but I found it susceptible only on high pressure years (this one included). In Ca. we grow Gravensteins for love, but also "doesn't get scab"--well, this year I'm seeing more on the leaves than ever--again, will it make it to the fruit?

I am in the fresh market business and vinegar and hard cider--so I like Claude's rating system--it is close to what I do. Some of my varieties taste so good the Farmer Market folks don't care how they look (i.e. Kerry Irish Pippin, Gold Rush, Belle de Boskoop). I need a fair amount of culls anyway. For Claude's Info, I spray Neem and Fish per Michael's program and keep sulfur around for emergencies and set up a small test block with sulfur used like the old days, but will only get real answers on Golden Delicious, Sierra Beauty, Pink Pearl, and Bartlett Pears. They are very clean so far. It looks like part of this will appear twice--When I pushed tab to indent my paragraphs, it instead made this second copy and I'm afraid to push cancel and maybe have to start over.

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