



## disease protection from above

Posted by [David Maxwell](#)  
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[David Maxwell](#)  
[disease protection from above](#)

March 17, 2013 10:55PM

Registered: 11 years ago  
Posts: 197

I have dealt with the problem of scab simply by growing scab-resistant varieties rather than the usual stuff in commerce. I do not use any treatments at all.

A much more interesting approach for those who grow a full range of apple varieties, however, is used by Derry Chase in British Columbia. His climate zone is the "rainy west coast". They have covered each tree row with a canopy of poly plastic stretched over simple wooden supports. No wetting of the fruit -- and thus no scab. A full description on his website: [[derrysorchardandnursery.ca](#)] can be found by clicking on "shelters" in the bottom menu bar.

[Broomholm Orchard](#)  
Zone 5b in Nova Scotia

Edited 1 time(s). Last edit at 03/18/2013 01:08AM by Michael Phillips.

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[Todd Parlo](#)

[Re: disease protection from above](#)

March 19, 2013 06:06PM

Registered: 10 years ago  
Posts: 301

Resistant varieties are certainly going to become the mainstay of organic or holistic fruit growing. I state this with a bit of sadness, as this will certainly make it more difficult to keep some very interesting pieces of our culture alive in those heirlooms and such. I have been coaching our customers to select the resistant varieties for their fresh eating, but to make sure to include some more interesting selections for slicing, pies and so on where scab is less an issue. What this means is, again, the small farms and homesteads will safeguard the cornucopia, and the commercial farms will help out by growing the bulk of healthy food for the rest of the populace (which surely is needed as well). Even those with the greatest passion for diversity would do well to plant plenty of varieties that make for only half the battle for clean fruit. Part of our farm-wide experiment here is to find out how many of the interesting old varieties out there may have some resistance (literature isn't always forthcoming with the truth).

I would also like to add to the discussion of covering trees for protection. In our old forum I commented on the danger of transitioning to acres of plastic sheltering (more plastic, ugly landscapes, and cost). Intrigued, we soon after put up a high tunnel to test the concept of fighting disease and insect pressure both by keeping foliage dry as in the system mentioned by David above, and to physically limit the ingress of insects into the house. What we are discovering (slowly- it is an ongoing study) is that the approach has some merit. I intentionally selected most cultivars to be highly scab susceptible. No overhead watering was used. There was no scab lesions on any of the fruit or foliage in the house, and no new cankers from any other pathogens. Insect damage was also very low- only foliage damage from Lepidoptera.

The studies we are doing here are geared toward small farms and homesteads, not larger commercial ventures. So, my opinion is that some tree fruits under cover for reduction of spraying and inputs has merit. A few apples, for instance, against the house north wall could produce quite a bit of pristine fruit and likely service the family need for out of hand eating. After seeing our set-up a friend is including a greenhouse of apples (bud-9 stock) as part of a commercial venture. If the price for fruit is high enough, a 3,000 \$ plus outlay for a 20 x 40 high tunnel may be a sound investment, but is risky. The alternative of roof only structures (much cheaper) I do not think would survive in our area due to winds (and would have to be rolled up for winter snows). Aesthetically, there would be a limit on how much plastic I could stand to look at, and granted this is a personal matter not a scientific observation. We will be publishing some finer figures of our study on our website, but I will comment on how things are going here in the forum. I would be happy to answer any specific questions about it here or through a personal inquiry. It is interesting to note how the methods can differ so much with respect to scale. We may all come up with answers to food production that work perfectly for a village that are meaningless to a larger commercial enterprise.

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[David Maxwell](#)

[Re: disease protection from above](#)

May 06, 2013 03:35AM

Registered: 11 years ago  
Posts: 197

Virtually all my cultivars are heritage varieties. And most of them are scab resistant. The ultimate cooking apple is Bramley's Seedling. Belle de Boskoop is equally scab resistant. Pomme Gris, (now this one is really a heritage variety, going back to the 17<sup>th</sup> c.) ditto. Peasgood Nonsuch - only minor scab. Ananas Rtte - a little scab on leaves, but clean fruit. Or Lady (Pomme d'Api, (although this is a pretty specialised apple, but, again going back at least to the 17<sup>th</sup> c., and perhaps even to Roman times.) Etcetera. (And it is not because I don't have scab - my Glowing Heart and Snow trees are going to be replaced because they are so afflicted with scab, (and I don't value them enough to embark on spraying them.)

The concept that scab resistance is limited to the recent developments (with the Vf gene incorporation) is, in my experience invalid. (And none of the above noted cultivars are scab resistant because of the Vf gene - which arguably is a damn good thing, given the recent loss of resistance of the

cultivars with the Vf gene to new strains of scab.)

(I do have Williams Pride, a "modern" cultivar, and the only decent early apple I have found.)

Edited 1 time(s). Last edit at 05/07/2013 03:35PM by Michael Phillips.

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[Todd Parlo](#)

[Re: disease protection from above](#)

May 08, 2013 06:03AM

Certainly, there are a great many resistant varieties out there. It is our hope in Walden to assess the merits of each (430 varieties and counting), especially in terms of practicality under organic management and for small farmers and homesteaders. Bramley's, a scab resistant heirloom, is apparently being attacked by scab in some areas, presumably a new scab race.

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[Claude Jolicoeur](#)

[Re: disease protection from above](#)

May 08, 2013 06:59PM

Todd Wrote:

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> Bramley's, a scab resistant  
> heirloom, is apparently being attacked by scab in  
> some areas, presumably a new scab race.

Not necessarily a new race. I have often seen varieties that are not bothered by scab in my orchard, being badly affected at another location. And vice-versa. My opinion on this is that each orchard has its own fauna/flora of beasts, its own particular blend of the different races of scab, which may leave a certain variety unharmed in one orchard, but another blend in another orchard may go to that same variety. Let's not forget the climate. A variety may appear resistant in a location because the timing between the weather and the periods where the apple is most vulnerable just don't match, and they could match in another location.

Claude

[Jolicoeur Orchard](#)

Zone 4 in Quebec

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

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[Michelle and Chris McColl](#)

[Re: disease protection from above](#)

May 27, 2013 04:31PM

Claude wrote above : "*A variety may appear resistant in a location because the timing between the weather and the periods where the apple is most vulnerable just don't match, and they could match in another location*".

This timing/vulnerability issue is real, and could explain some of the differences. We regularly see big differences in scab incidence between years for the same varieties at the same location.

To explain: we are growing some highly scab prone varieties, such as Royal Gala, Pink Lady, Sundowner, Braeburn, Granny Smith and the (supposedly) less scab prone Fuji. The rows are in close proximity, we have whole pollinator rows through some blocks, other blocks have every 10th tree down the row as a pollinator (eg. Braeburn in Fuji blocks, Fuji in Jonagold blocks). In these blocks we use what Michael accurately refers to as "the continuous sulphur bath approach". We spray with wettable sulphur just before forecast rain. It takes about four hours to spray the entire area with an air-blast sprayer. We travel along every second alleyway (spraying trees on both sides) across the entire area, and then go back and do the intermediate alleyways. So in effect, **all varieties are sprayed at exactly the same time**, just before the rain.

And the interesting thing is this - one year the Gala will be clean as a whistle, while the Sundowner pollinators in the same block will be a write-off with scab lesions. And the next year the situation will reverse - scabby Gala growing with clean Sundowner. This swapping around happens with all our sulphur-sprayed scab prone varieties. It seems there is a stage of growth (probably only a day or two) not long after petal fall, where no matter what you do (with sulphur at least), if it rains, you're going to get scab.

In fact in this season just finished, last October our northern Pink Lady block flowered a few days later than the southern Pink Lady block - the north was clean, the south was scabby!

Kalangadoo Orchard

On the "other side" in South Australia

Edited 2 time(s). Last edit at 05/27/2013 04:37PM by Michelle & Chris McColl.

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