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Does (tree) size matter?

Posted by [Todd Parlo](#)

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[Todd Parlo](#)

[Does \(tree\) size matter?](#)

April 26, 2022 10:40PM

Registered: 10 years ago

Posts: 301

A very long and contentious discussion in cider circles has been the influence of tree size in the quality of fruit, the management of the trees, and the difference in overall orchard management between cider production and the dessert market. I was prompted by Claude and Josh's comments in the sensible equipment thread:

"Claude, do you have any other techniques you use for spraying, harvesting, or generally taking care of your 40' seedlings? We have some old M106's that are about that height (!), which can be a bit challenging (ha!).

Josh, Have you heard of this wonderful technique called "do-nothing"? AKA "let Nature go"...

I do clean the ground under these wild trees, cut larger maple or birch trees that may be shading them.

I may cut some low branches that are dead or in the way, but nothing higher than my height or that I can easily reach.

Spraying? Are you joking? These are 60-80 years old and have never been sprayed. They give reasonably clean fruit (for cider) and are in good health. I don't see any reason why I should start spraying even if I had the capacity for spraying such trees (which I don't have anyway).

For harvest, it is just a question of picking the apples on the ground once every 3-4 days during season."

This is a wonderful entry into discussing the differences, often radical between the modern high density dessert (and now cider) method and the solidly traditional practice of making apples from big trees. The industry standard, the university line, and most new orchards are strictly of the high density model. This practice requires a certain set of management practices that research and manpower is being poured into. Now, without judgement, there is missing any meaningful discussion of the specific practices associated with the alternative. I don't mean to say there are not informative sources of yesteryear, just that a shortfall of modern research is being done to study and improve the standard tree orchard method. This concept affects all aspects of life, when effort is gushing in a particular direction we will find satisfactory models, and where there is a lack of resources, there will be a lack of information and often, support. It is not unlike the concept of confirmation bias in research. I will most certainly comment elsewhere on the difference in these two practices, but here I would like to see a dialog on how these specifically affect the cider orchard. Things to think about are the above conversation about harvest, nutritional/chemical differences and quality of the fruit, ripening, orchard health, fruit size, etc. Another concept that is directly linked to the standard tree orchard is that of tree age. Whereas a dwarf tree is typically in decline by age 20, a standard seedling may see over 150 years. How does that affect fruit quality, if at all?

[Walden Heights Nursery & Orchard](#)

Zone 3 in Vermont

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[Claude Jolicoeur](#)

[Re: Does \(tree\) size matter?](#)

April 27, 2022 06:05AM

Todd Parlo Wrote:

> This is a wonderful entry into discussing the
> differences, often radical between the modern high
> density dessert (and now cider) method and the
> solidly traditional practice of making apples from
> big trees.

Actually, Todd, I wrote a 30 page discussion in my new book on traditional vs modern cider making practices... It goes further than orcharding to include pressing, fermenting and final processing.

All this is quite fascinating, and there are still so many unknowns.

[Jolicoeur Orchard](#)

Zone 4 in Quebec

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

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Registered: 11 years ago

Posts: 226

[Craig Bickle](#)

[Re: Does \(tree\) size matter?](#)

May 03, 2022 04:59PM

Registered: 2 years ago

Posts: 82

I am very interested in this topic as well, Todd. Given the restrictions of our orchard site, I'm in the process of deciding what size trees to plant in the next few coming springs. Because of manageability concerns, I am looking to keep the trees on the small side (12') but picking a rootstock that will allow them to tolerate the "neglect" cider makers have reported helps to concentrate sugars, tannins, aromatics, etc.

Big seedling, or comparable, trees just aren't practical in our cramped space. So we're going to try getting as much of the same benefits of growing big trees but on a much smaller scale as we can. Our success or failure won't be fully discernible until years down the road, but I'll happily keep reporting on our experience... and how the cider turns out when the apples it's made from are grown as free-standing cider varieties on semi-dwarf stock.

Was about to hit "Post message" when it occurred to me to mention the rootstocks I'm considering in case anyone has strong opinions for or against them for our situation: G.202, G.935, G.210, and G.222. We get all our trees as whips from Cummins (we're small enough that it remains affordable.) So I trust their products are virus-free.

If you're moved to chime in, please let me know!

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[Nathaniel Bouman](#)

[Re: Does \(tree\) size matter?](#)

May 03, 2022 07:59PM

Registered: 9 years ago

Posts: 81

Very interested in this topic as well and I will be ordering your book, Claude. We've got 500 trees on B.118. Trying to do as little as possible. My first concern is fire blight. I can imagine tolerating many other problems but fire blight seems like an achilles heel. Wilding trees that are full grown and healthy probably have natural resistance to fire blight (the ones that didn't die). Any thoughts here?

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

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[Nathaniel Bouman](#)

[Re: Does \(tree\) size matter?](#)

May 03, 2022 08:00PM

Registered: 9 years ago

Posts: 81

Craig, is G.890 too big for you?

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

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[Craig Bickle](#)

[Re: Does \(tree\) size matter?](#)

May 03, 2022 08:19PM

Registered: 2 years ago

Posts: 82

Yes, it is. I have 4 trees on G.890 now, and already they're pushing out to the edges of their allotted space.

I know. Allot more room! I have in the new block I'm planning. But I'm still inclined toward smaller trees that will match their confines proportionally. It must be the carpenter in me.

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[Claude Jolicoeur](#)

[Re: Does \(tree\) size matter?](#)

May 04, 2022 12:25AM

Registered: 11 years ago

Posts: 226

Nathaniel Bouman Wrote:

> Wilding trees that are full grown and healthy probably have natural
> resistance to fire blight (the ones that didn't die). Any thoughts here?

I tend to agree with this - as long as this wilding tree has grown in a place where fire blight is endemic.

For example, here fire blight is not a problem, the disease is simply inexistant. Hence wild trees haven't developed resistance. If the disease would spread here eventually, I suspect that in the years that would follow, a number of wild trees would die, and the resistant ones would survive.

[Jolicoeur Orchard](#)

Zone 4 in Quebec

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

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[Nathaniel Bouman](#)

Registered: 9 years ago

Posts: 81

[Re: Does \(tree\) size matter?](#)

May 04, 2022 01:24AM

What a dream to live without fear of fireblight.

I'm trying a hybrid approach. Not do-nothing but very far from dwarf/high density management. From my financial/time perspective I couldn't do much else and it also seems like the best way to grow fruit for cider or brandy--unless you happen to already own a mature, standard orchard. When I visited Normandy and talked to farmers that produce calvados they all preferred their older, bigger trees to the young ones. Of course, my french is shamefully bad so I may have misinterpreted.

Harvest: I'm using a simple olive harvest aid--basically an inverted umbrella that I unwrap around the tree and that funnels fruit to baskets. This wouldn't be practical with 1500 tiny trees but with 500 big ones it seems to make sense so far. I try to time harvest so that I'm shaking the tree just as the apples are ready to drop. As the trees get older I will need to find mechanized way to shake them I think.

Pruning: Oh lord. It's now too big a job to do by myself. I've got a 16' ladder for some of the varieties. So, I'd love to hear more about, well, not pruning very much. I'd imagine standard orchards in Europe don't prune much at all. What is the real impact on fruit? How much lower are the sugars? Effect on tannins? How much more vulnerable is a minimally managed canopy to serious disease? I'm on generously spaced b.118, not seedling, so is there a categorical difference with seedling or is there more just a matter of degree?

Nat Bouman

Growing cider varieties in Zone 5b

On B.118 at 18X24

Susquehanna County, Pennsylvania

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[Claude Jolicoeur](#)

[Re: Does \(tree\) size matter?](#)

May 04, 2022 08:05PM

Nathaniel Bouman Wrote:

Registered: 11 years ago

Posts: 226

> What a dream to live without fear of fireblight.

Keeping fingers crossed...

> When I visited Normandy and talked to farmers that
> produce calvados they all preferred their older,
> bigger trees to the young ones.

Yes. Plus if they make the DOP cider, the specification requires they grow a certain fraction of their fruit on "haute tige" trees (high stem).

> As the trees get older I will need to find mechanized way to shake them I think.

Maybe not. With a 12 or 16 foot stick and a hook at the end, you can shake pretty high branches without having to shake the whole tree.

I use an extensible painter's stick (mine is 6 to 12 ft, but there are some longer ones), to which I have attached a modified paint roller - by working the metal I made 2 hooks, one to pull and the other to push on the branches. It works very well.

> So, I'd love to hear more about, well, not pruning very much. I'd imagine standard
> orchards in Europe don't prune much at all. What
> is the real impact on fruit? How much lower are
> the sugars? Effect on tannins? How much more
> vulnerable is a minimally managed canopy to
> serious disease? I'm on generously spaced b.118,
> not seedling, so is there a categorical difference
> with seedling or is there more just a matter of
> degree?

My impression is if you do a good formation to the tree in the beginning, it won't need much pruning as it grows bigger. For my part, I don't prune at all the wild ones as it is simply unrealistic. I also have some big standards that are grafted to varieties, and these are quite easy to prune. Since the canopy isn't as crowded as in a wild tree, it is quite easy to climb to the top and prune whatever branch needs to. As to the effect on tannins and sugar, I don't know. In order to evaluate this, we'd need to have a wild seedling tree, then graft a scion of that tree to a rootstock, wait until this new tree grows and manage it as an orchard tree, and then compare the production from both trees...

[Jolicoeur Orchard](#)

Zone 4 in Quebec

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

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