



[Advanced](#)

thinning cider varieties

Posted by [David Maxwell](#)

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

[David Maxwell](#)

[thinning cider varieties](#)

July 23, 2021 06:53PM

Registered: 11 years ago

Posts: 197

I am a little embarrassed to have to ask, but am I correct in thinking that there is no need or benefit in thinning apples destined for cider production?

Another question which somebody may be able to weigh in on: Do quinces, (in my case, Quince of Portugal, which seems to be very productive - annually), need or profit from thinning? (One Ag site I found opined that "they should not need thinning", but my sense is that they are smaller now although much more numerous in recent years, like unthinned apples). Doesn't affect return bloom, (and not surprising because quinces bear on current year's wood, not fruit spurs), but may affect fruit size (?)

[Broomholm Orchard](#)

Zone 5b in Nova Scotia

Edited 1 time(s). Last edit at 07/24/2021 02:20PM by Michael Phillips.

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

[Craig Bickle](#)

[Re: thinning cider varieties](#)

July 27, 2021 05:01PM

Registered: 2 years ago

Posts: 82

Hi David,

I'm a little embarrassed to be answering this question but since no one else chimed in...

I feel like I'm not the best person to answer because I don't have any direct experience with thinning for cider apple production. My oldest trees are in their 5th leaf and just now producing a very light crop. But I have read a TON of books about apple-growing and cider-making. So I at least feel expert enough to report on what the experts say. Here's what I've read...

Two things come to mind. The first is that the finished product (your cider) will be improved by focusing on growing the highest quality apples. To that end, cultivation practices such as thinning and planting semi-dwarf or larger rootstock should yield ciders that are more full-bodied yet subtly flavored. When thinned, trees will put more energy and resources into the smaller number of apples left on the tree, thereby concentrating sugars and developing better aromatic qualities. ON THE OTHER HAND, I read an article about making a profit by growing apples for cider, and the author was quite insistent that if you want to make money in the cider business, focus your attention on volume of juice at the lowest price of production. He said the only way to do so is to grow intensively on dwarf stock exclusively. I'm sure there are cultural practices around thinning that are common to all orchards engaged in high volume apple production. But since I'm developing an artisanal/boutique sort of orchard, I'm following the advice specifying fewer apples on larger trees.

The second thing: I can't recall ever reading that no thinning whatsoever is healthy for the tree or conducive to its ability to crop consistently. On the contrary, the benefits of thinning are lauded in book after book. Trees want to thin on their own, of course. It's the reason for June drop. But they benefit with a little assistance from bipeds who can more carefully select the best options to be left hanging. The effect is bigger, healthier, more flavorful fruit with fewer pests. In addition, thinning counters the tendency toward biennial cropping in apples. And it's a big part of orchard sanitation, keeping drops that may harbor pest larva from rotting beneath the tree. I'm sure there are other reasons I'm not thinking of right now. For example, I know M. Phillips has quite a bit to say about the benefits of thinning.

But to reiterate, I haven't read anywhere that thinning is an unnecessary concern for cider apple growers. In that department, things like flyspeck and sooty blotch come to mind. But not thinning.

Hope that helps!

Craig Bickle

Hap Woods

Zone 6a

East-Central Ohio

Edited 1 time(s). Last edit at 07/27/2021 05:04PM by Craig Bickle.

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

[Craig Bickle](#)

[Re: thinning cider varieties](#)

July 27, 2021 05:02PM

Also David,

Registered: 2 years ago

Posts: 82

I know almost nothing about quinces. Good luck though!

Craig Bickle

Hap Woods

Zone 6a

East-Central Ohio

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

[Jay Kenney](#)

[Re: thinning cider varieties](#)

July 27, 2021 09:14PM

Registered: 4 years ago

Posts: 4

I'm in Colorado and my practice is to skip thinning. But I do not think there is a correct answer, more about deciding where and how you want to spend time and money. Most of the trees I currently pick for cider are huge, old overgrown, barely tended beasts and the cost of thinning by spraying is prohibitive and by hand impossible. They are just that tall. The trade off is slightly smaller apples, but more of them, and perhaps an increase in biennialism. If you do not control for codling moth, however, remember that apples that touch make it easier for the worms to travel from apple to apple and thus increase apple damage. I'd prefer no moth/worm damage because they cut into the overall quantity of fruit we get, but I don't own most of these old trees and it is hard to convince the owners to spend much \$\$ on orchards when they are paid a relative pittance, at least when compared to fresh pack Grade A fruit. Last year, for instance, we paid .12¢ per pound for fruit we picked and .20¢ if the owner picked.

I've a few trees in our home orchard that were all planted in the last 5 years and I've kept them to a manageable size. Most are for cider. I thinned by hand just to see how much time it would take and with what impact. About 15-30 minutes per tree, and I'll let you know later this year on size of thinned fruit for comparison purposes and next year for effect on biennialism. But we are so challenged by climate change it is hard to know if the yearly differences are the result of thinning practices or the late/early freezes, the drought, the heat, the smoke, or pick your effect.... Where I do notice a significant difference is in the late season trees I've been thinning and pruning. That alone has decreased the total number of apples and increased the overall size of the individual apples. Typically, it takes me about 1-2 hours per tree per year, but these are trees that, as far as I can tell, had not been pruned in 10+ years when I began pruning in 2015. Hope that helps. And don't be shy about asking!

Wheat Ridge, CO, Zone 6a (2018)

Golden, CO, Zone 5b (2018)

Crawford, CO, Zone 6a (1905)

Lewis, CO, Zone 6a (2017)

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

[Claude Jolicoeur](#)

[Re: thinning cider varieties](#)

July 28, 2021 03:22AM

Hello David,

I don't thin...

A few reasons:

Most of my trees are old and big. I don't want to thin chemically, and I don't have the patience to thin manually.

Is it detrimental to cider?

I don't think so. Maybe I get less juice per tree, but the juice is probably more concentrated. So I probably get less but of higher quality.

That is perfectly OK for me.

Registered: 11 years ago

Posts: 226

PS - actually I did thin one tree this year - a young tree on its first year of production, and I didn't want it to spend too much energy to produce apples (at this size I prefer that the tree produces wood). So I only left 5 apples of which 3 still remain...

Claude

[Jolicoeur Orchard](#)

Zone 4 in Quebec

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

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

[Eric Shatt](#)

[Re: thinning cider varieties](#)

July 29, 2021 07:41PM

Registered: 11 years ago

Posts: 7

David, Good Question. I think the answer is dependent on what you want your final product to be. There has been some recent research from Greg Peck and specifically grad student David Zakalick showing twice as many tannins present in common cider varieties in off years, (or low cropping years). He also throws this number out there that 6-9 fruit/ cm² TCSA is ideal for harvesting the “ best juice(and I don't know exactly how they quantified that)” and reducing biennial bearing. This supports my experience growing cider apples for over 15 years that you get concentrated flavor with a smaller crop. I have also seen trees so overburdened with fruit that they don't develop fully and leave you with excessive unrepentant green tannins, which are tannins but not the soft rich complex earthy leathery textures and flavors that when we taste we generally call them balanced, integrated, or harmonious. So in a year line this year where I have a heavy crop on almost everything I'm working hard these days at adjusting crop load on a per tree basis, and taking advantage of dropping cm/ofm apples at the same time. I feel with my thinning I am working towards riper tannins and riper fruit. Of course the orchard age and planting system plays a role as well. Big old trees seem to have the ability to ripen more fruit and rarely need thinning I would guess this is getting back to that number 6-9 fruits per.....

Where dwarf need more attention to get there.

Good luck

Grow on!!

Eric -Redbyrd Orchard FLX NY

[Reply Quote](#)

[Matthew Mullet](#)

[Re: thinning cider varieties](#)

July 29, 2021 09:15PM

Registered: 2 years ago

Posts: 14

That's all very helpful info Eric. I fall into the same category as Claude and Jay in that I mostly don't thin. As a non-commercial cidemaker with basically endless wild / abandoned apples to pick from, I don't mind much when my orchard (1.5 acres on mostly MM111) has heavy-cropping years followed by light-cropping years. I actually think biennialism could be helpful for cycles of pests and disease in the holistic orchard. But if I did have to pay attention to market pressures, I'd probably be trying to get some return bloom through thinning some of these very biennial cider varieties. Related to that—I heard Autumn Stoscheck (Eve's Cidery) say on a podcast that they tried to thin their Frequin Rouge to keep it from being so biennial-bearing and they just ended up with less apples of the same size and still no more apples the following year. So I guess thinning can also be a variety-specific exercise!

Matt

Fredericksburg, OH

Zone 6a

[Reply Quote](#)

[Mike Biltonen](#)

[Re: thinning cider varieties](#)

July 30, 2021 03:31PM

Registered: 11 years ago

Posts: 298

This is a great thread. Thanks everyone! Basically, what Eric said. My personal opinion is that everyone should thin their crops every year. It reduces branch breakage, increases return bloom, increases fruit quality, reduces pest damage (fewer clusters), and in general supports overall tree health. Just because they can set an excessive crop load doesn't mean they can or should carry it. The timing of thinning is critical to return bloom. You basically have the period between fruit set and 45 days after fruit set to influence return bloom; and each variety can vary in terms of its ideal timing. The earlier you can get the fruit off (including blossom thinning) improves your chances at better annual production and higher fruit quality. Later thinning can improve fruit quality, but earlier thinning does both - influences return bloom and increases fruit quality. As far as fruit quality is concerned, its akin to winegrape growers dropping clusters to increase fruit quality. The tree or vine only has so much Pn potential because there is only so much leaf surface. And reduced leaf to fruit ratios means the leaves are trying to support more fruit and some point they run out of carbohydrates to partition, and so each fruit gets less than its needs. Eric's comment about 6-9 fruit/cm² TCSA is about right I'd say. Another way - and the way I first started thinking about it - is 20-25 leaves per fruit. Either way, you'll probably get about the same answer. So, a 10cm tree has a TCSA of 78.5 meaning it can theoretically carry about 550 fruit and that fruit would need about 11,000 healthy leaves. While some stress on trees is probably good for developing full juice profiles for cider (as opposed to flabby, lazy bixy juice such as from dessert apples), a lot probably works against that. And this, in my humble opinion, is why thinning is critical.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

[Reply Quote](#)

[Craig Bickle](#)

[Re: thinning cider varieties](#)

August 02, 2021 03:41PM

Registered: 2 years ago

Posts: 82

Great thread indeed! Thanks for asking the question, David. And to everyone who chimed in.

One quick note:

I always love seeing Claude's posts...

Don't worry about crushing worms into your juice

Don't worry about thinning

Don't worry about growing big, old standard trees

And yet he's famous (among a small circle like us) for making excellent cider!

Gives me confidence to not obsess about every apple being perfect.

That said, I'll keep thinning (mostly because I can, relatively easily.) Cheers everybody!

Craig Bickle
Hap Woods
Zone 6a
East-Central Ohio

Edited 1 time(s). Last edit at 08/04/2021 02:28PM by Craig Bickle.

[Reply Quote](#)

[David Maxwell](#)

[Re: thinning cider varieties](#)

August 02, 2021 09:44PM

Registered: 11 years ago

Posts: 197

The plot thickens... I did not thin most of my cyder apples this year. The two trees of Yarlington Mill bore very heavily. (Yes, I fully appreciate that they probably will not do so next year. And, yes, the apples are probably smaller than they would have been had I been more diligent.) But we are now at August 1. Theoretically YM matures late October into November. My trees are actively dropping much of their fruit now. And the drops are actually probably mature - the seeds are brown, the fruit is sweet and not particularly acidic, (but high in tannin, and not what I would want to eat). It is rather dry, (not juicy). So.... are my trees doing what I should have done back in June - getting rid of excess crop load themselves? (A greatly delayed June Drop). Is something else causing a markedly premature drop? Or, (more problematic), yet another mis-labelled tree? (I have been very careful in labelling my trees myself, but have found a very frustrating lack of reliable identification of scion wood, even some obtained from the Canadian Germ Plasm Repository. (There may be an external history in this latter.) Or just bad karma.

[Broomholm Orchard](#)

Zone 5b in Nova Scotia

[Reply Quote](#)

[Shay Hohmann](#)

[Re: thinning cider varieties](#)

February 04, 2022 02:20AM

Registered: 2 years ago

Posts: 3

In our orchard which is all dwarf rootstock, thinning is essential to reduce limb breakage. This in addition to the other reasons listed above in Mike's post. On larger rootstocks it may be less essential.

I am curious about other people's experience using Trunk Cross Sectional Area, TCSA, to gauge thinning rates. What method do you use to estimate TCSA? I have seen tools like the equilifruit disc, but I haven't figured out where to buy one to test for myself yet.

Recommendations or resources?

Center Valley Orchards
Washington State - Olympic Peninsula

[Reply Quote](#)

[Mike Biltonen](#)

[Re: thinning cider varieties](#)

February 04, 2022 03:22PM

Registered: 11 years ago

Posts: 298

Measuring TCSA is a pretty straightforward exercise. Determining crop load per TCSA is another matter and depends on the variety. Here's a quick video to explain: [here](#). Now, they say 30 cm (or 11.811") but I usually measure at 45.72 cm (or 18") just above the top of my trunk guards. It's all relative anyway, so if you are developing your own crop load/TCSA database then it doesn't matter that you're measuring higher up. That said, if you are using another person's data make sure you know and adjust for the height of their TCSA measurements. The equilifruit disc is a good tool for determining fruitlet diameters, but not good for determining crop load per TCSA. The trunk gauge ([see here](#)) will give good direction on crop load when placed at the appropriate height on the trunk and for the varieties listed. Problem is this only works for Gala or Honeycrisp. But you can still use it and decide whether your apples are more like HCP or GAL and go from there. Or develop your own database over time. And esp if you are growing cider varieties, you will likely need to do your own work.

As far as obtaining the equilifruit disc or trunk gauge, any Valent rep will have them and give them to you (generally speaking). I do have a small number of each and I could you one of each, but I don't have enough for everyone. If you PM me with your address I'd be happy to send you them. But, I prefer to use a pair digital calipers for fruitlet measurements (more precise, just as fast) and developing my own databases for crop load/TCSA (since the gauge is so limited in scope).

As a general rule, 20-25 leaves per fruit for normal sized fruit, or about 60 lbs of fruit (1.5 bushels) per 45.6 cm² TCSA. that's a 3" diameter, fully mature high density trellised apple tree. The bigger and older the tree, the more the wood:fruit ratio shifts away optimal productive capacity - there is more wood than fruit, so the crop load/TCSA would go down. ergo, the entire reason commercial orchards shifted to high density orchards - more energy efficiency, as more energy was put into fruit than wood. So just because the tree is larger doesn't mean it is more efficient on a TCSA basis. Maybe more fruit per tree, but lower productive efficiency. Now, there are many other variables I haven't accounted for, but this a good starting point for how to think about it.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

[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](#).