



Pushing sluggish growth on 2nd leaf apples

Posted by [David Fulton](#)

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[David Fulton](#)

[Pushing sluggish growth on 2nd leaf apples](#)

July 08, 2021 06:33PM

Hey folks,

Registered: 3 years ago

Posts: 8

While I'm making progress with my grafting skills, I'm having challenges pushing growth in 2nd leaf and would appreciate some guidance from folks that have more experience progressing beyond the graft to actually growing a good sized healthy tree!

My grafts from last year look healthy for the most part, but most are only a few inches tall, and they feel more like a step-over (they are on MM111) rather than the 12-16' monster I'm hoping for at maturity a decade or so down the line. The plants that didn't make a lot of growth in 1st leaf are at risk for losing the graft in my experience - the rootstock typically survive a Maine winter, but any low to the ground grafts that didn't put on reasonable growth sometimes don't make it.

Other than mulch and a light spring application of wood ash to add some K, my approach to date has been just to keep the trees clear of competition for water and nutrients, but that is it, I don't use foliar spray. My soil is lowish in N - and the wood chip mulch that needs renewing will steal some N I'm sure as they break down, so that explains the lack of growth in year 1.

I followed Michael's advice in his books to dump some compost in a unorderly pile (using aged cow poo in my case) around the base of each plant, and i'll renew the mulch, building that up a few inches. What else should i be doing between July and September to make sure that my grafts make good growth in their second leaf?

USDA 5b, Blue Hill, ME

600+ trees on MM111/G890 (100+ UK cider varieties in 1st to 3rd leaf)

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[Craig Bickle](#)

[Re: Pushing sluggish growth on 2nd leaf apples](#)

July 09, 2021 10:15PM

Registered: 2 years ago

Posts: 8

Not sure I can be of much help, David, as I lack much experience myself. (Oldest trees in their 5th leaf, so this is my first year with any fruit.) But your description of your trees so much resembled 4 of mine, I thought I'd let you know how they're doing by comparison.

These four trees are my "trap" trees, so I've neglected them compared to my more babied "crop" trees. Gave them nothing but a ramial wood chip mulch and hit them with leftover sprays to empty the tank when I need to. Also, I try to keep them watered during our hot humid summer months. Occasionally to the buckets of water I pour around their base I add a few cups of liquid fish. But that's about it.

So how are they doing? At least 6" and up to 18" of growth on each of the scions my wife and I grafted onto the rootstock this spring. I mention it not to boast, but to provide you with a comparison, as I said. Frankly, I've been surprised myself how much these trees have taken off.

I'm sure others can add better suggestions with greater authority, but what occurred to me would be to pile on the compost this fall when the trees go dormant and/or give them an organic bloodmeal boost next spring. I know this doesn't address your question about helping them to hang onto their grafts this winter. But I guess I'd be reluctant to give them too much nitrogen at this point in the year. Having said, I recall reading in Orin Martin's book that a bucket or so of compost by early August is an okay thing to do.

Hope I'm not steering your wrong. But all I've got is my own experience to go by!

Craig Bickle

Hap Woods

Zone 6a

East-Central Ohio

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

[Matthew Mullet](#)

[Re: Pushing sluggish growth on 2nd leaf apples](#)

August 16, 2021 05:32PM

Registered: 2 years ago

Posts: 14

David,

I've found MM111 to be very slow growing in the first couple of years (the oldest that I've grafted on MM111 are 6 years old). My 2 year old G890 grafts (not to mention my 3 year olds on G890) have really taken off. B118 1st-year grafts also look to be noticeably faster-growing than MM111 so I'm moving that direction with all of my new semi-standard trees.

I've noticed that to be true of MM111 on even purchased nursery stock. It's slow to grow and slow to bear, but does well with a variety of conditions (most notably drought), which I like. But take Kingston Black on MM111, which throws a lot of blind wood anyway, and you end up with very little production. Or Harrison on MM111, which is purportedly slow to bear as a variety, and I have 7 year old trees that still haven't produced a single blossom. I'm imagining the slowness to bearing being partially due to the Northern Spy in its parentage.

At any rate, the shy growth you're experiencing may not be an indictment of your process. I've mulched my nursery exclusively with ramial wood chips and very little compost and there are persistent differences I've observed among the rootstocks. I'd try B118 if you're worried about the growth of your bench grafts overwintering and see if it makes a difference. Once MM111s are 4 years plus, they tend to start really putting on growth in my experience.

Matt
Fredericksburg, OH
Zone 6a

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[Craig Bickle](#)

[Re: Pushing sluggish growth on 2nd leaf apples](#)

August 17, 2021 03:10PM

Glad for the reminder to revisit this topic!

Registered: 2 years ago

Posts: 82

After I mentioned the suggestion by O. Martin to fertilize in "mid to late summer" I went back and studied his advice. This time of year my trees always shows signs of stress: curled browning leaves, yellowish-colored new tip growth, and the general appearance they are struggling, some though more obviously than others. I corrected my previous habit of not watering systematically, so I'm sure lack of water isn't the problem. Rather, the unimproved topsoil I plopped my trees into either lacks certain trace elements or the capacity for the trees to access the soil nutrition already there. At least that's what I concluded from the soil tests I've had done.

So like I said, in recent weeks I did some studying and decided to fertilize. Did so just last week. In my case, I use aged goat litter compost. Like most farmers I imagine, you make do with what you have available and for me that's goats. My reasoning was that the trees are beginning their fall root flush while the above ground portions have slowed in growing new leaves and wood. At least that's what the annual growth charts in my library of books suggest. So I scattered haphazardly around the base of my oldest trees about a third of a wheelbarrow of compost. Hopefully, rain this week washed some of the nutrients down to the feeder roots to help the trees prepare for dormancy by growing more underground than above. In previous years I've only fertilized during the dormant season, usually late winter but last year in December. I may do so again this winter to boost the nutrient levels in my unimproved orchard soil. Waiting to see how they respond to being fed in August.

I hope I haven't made a mistake by fertilizing at this time of year. Martin suggests we're far enough from cold weather and growth has slowed to its lowest point in the cycle at this time of year, so the risk of encouraging a growth spurt right before dormancy isn't a concern. On the other hand, he's in California where his years of experience may not translate directly to orchard happenings in the wetter midwest.

I should also mention, the trees I wrote about earlier, my "trap" trees just grafted this spring, are on M.26. It's the rootstock I had available after growing them in pots for a few years (hated to discard them.) My newer plantings are all on more modern stock varieties. They're doing well, healthier-looking than my older trees. But they're also planted in raised beds I had the foresight to amend the year before planting.

Hope this testimonial isn't too late to be helpful.. if it is helpful at all! I'll try to remember to report back on this experiment in summer feeding. In future years, I need to get better at foliar nutrient correction. But I'm still trying to absorb all the nuances of this approach. So far, I've been focused almost exclusively on the soil, outside spring spraying during blossoming and fruit-set, that is.

Craig Bickle
Hap Woods
Zone 6a
East-Central Ohio

Edited 2 time(s). Last edit at 08/17/2021 03:24PM by Craig Bickle.

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[Matthew Mullet](#)

[Re: Pushing sluggish growth on 2nd leaf apples](#)

August 18, 2021 01:45AM

Thanks for the thoughts on summer fertilizing Craig! I'd like to hear how that goes because I've often waited to fertilize until I've taken stock of potential fireblight infection on young trees and pushing that window later could be an advantage in that regard.

Registered: 2 years ago

Posts: 14

One thought I did have related to growth is if David's main concern is overwintering (rather than growing a 12-16' tree eventually—because that will happen) he could do some in situ grafting. The idea would be you'd plant out your bench grafts in their final locations in the orchard and any scions that didn't survive the winter could simply be top-worked over time with 1, 2, or 3 year root growth. A 3 year old root system will definitely put substantial growth on a scion or bud graft, but if you've ever tried to disentangle 3 year old semi-standard roots planted a foot (or less) apart in a nursery, you'll know it's not all that fun to leave them there that long!

Matt

Fredericksburg, OH

Zone 6a

[Reply Quote](#)

[David Fulton](#)

[Re: Pushing sluggish growth on 2nd leaf apples](#)

August 18, 2021 04:57AM

Craig and Matt,

Registered: 3 years ago

Posts: 8

Thanks so much about sharing your experiences and ideas. I wouldn't have thought of prepping the compost in Winter. I'll definitely give it a go this winter (might start a little later as my winters are a little colder/longer - its usually the last week in April before the growth gets going here). I also like the idea of considering other rootstocks. I tend to graft low, largely because of MM111's reputation for suckers - which probably means I'm going down far too low for our winters and cutting away too much wood. After your suggestions, I'm going to give G890 a go - I gave a few of those a try earlier this Spring and liked how they grafted. I'll try getting thicker rootstock earlier, get them going in the greenhouse and graft a few inches higher on the rootstock.

In the meantime - weekly waterings with heavily diluted neptunes harvest seems to be pushing some growth - although i think this weekend is going to be the last weekend i do that prior to winter.

Thanks again!

DF

USDA 5b, Blue Hill, ME

600+ trees on MM111/G890 (100+ UK cider varieties in 1st to 3rd leaf)

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