



the pace of spring

Posted by [Michael Phillips](#)

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[Michael Phillips](#)
[the pace of spring](#)

January 30, 2016 04:30PM

Moderator

Registered: 11 years ago

Posts: 621

Fruit buds have received the necessary chill hours this winter as we now enter that interim period prior to budbreak. The forecast for February is "warmer than usual" ... the forecast for March is "warmer than usual". Remember in 2012 how temps soared into the 80s in early March? That in turn set-up a blossom freeze for many of us that year.

Scab development gets tracked with degree days, starting the countdown with that *first smile of green* on a mid-season variety. Here's what that looked like on MacIntosh over the past several years here at Lost Nation Orchard:

- 2015 green tip on May 1
- 2014 green tip on April 28
- 2013 green tip on April 23
- 2012 green tip on March 26

Out in Philo, California, Tim tells me buds on pear and quince are swelling. The season is coming. It may not be a bad idea to get supplies on hand sooner rather than later. Let's use this post as a means of sharing "bud news" as things unfold in the months ahead.

[Lost Nation Orchard](#)

Zone 4b in New Hampshire

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[Mike Biltonen](#)

[Re: the pace of spring](#)

January 30, 2016 08:42PM

Registered: 10 years ago

Posts: 298

Ah-ha!! Beat me to the punch. I've been thinking about this quite a bit lately. It's 42F degrees on my back porch right (Trumansburg, NY) and been this way (as in: not very cold) pretty much all winter. I'm not quite ready to go out and start planting trees, but I am wondering whether that time will come sooner rather than later. More importantly I've been thinking about the implications it has for our orchards and management approaches -- specifically with what things we can do to hold back the inevitable. I'll keep posting how things are progressing in my backyards and it'll be interesting to see how this compares to everyone else.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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

[Fabio Chizzola](#)

[Re: the pace of spring](#)

January 31, 2016 06:54PM

Registered: 11 years ago

Posts: 35

Unfortunately it does look like 2012 again. I'm wondering, beside getting things ready a bit earlier, if anyone has tried any type of sprays in the past to help fight "Blossom Freeze".

In 2012 I sprayed Kelp on 3/26 at 1/2" Green Tip, the evening before it was suppose to get to 22 F. It didn't really work....lost almost all apples.

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[Todd Parlo](#)

[Re: the pace of spring](#)

January 31, 2016 08:01PM

Registered: 10 years ago

Posts: 301

I have read a lot of back and forth on the whole cytokinin debate for frost protection, and I imagine it has a lot to do with the amount of temperature nudge we are looking for. It can make a huge difference if we are talking about pushing a 25F temp vs 19F.

What may be more intriguing is temperature reduction to retard growth. Orchards traditionally used smudge pots and similar measures as a last gasp effort to save against frost. If in contrast we can retard growth, even a few days, disaster may be averted. We are close approaching, or have past endodormancy, and so temp is the only limiting factor to growth. Although evaporational cooling is used during the growing season with pulse spray regimes to control heat damage, early season attempts are not likely to be very effective. A reflective spray, like kaolin, might be. Since the surface temps of the dark bark can be quite high, even in subfreezing air temps, it stands to reason that bouncing that energy will retard growth. An application like this could, additionally, help reduce southwest injury.

[Walden Heights Nursery & Orchard](#)

Zone 3 in Vermont

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[Mike Biltonen](#)

[Re: the pace of spring](#)

February 01, 2016 01:11AM

Registered: 10 years ago

Posts: 298

The long term forecast for the rest of winter isn't good. Temps appear to be headed for "above normal" across the northeast. I won't say that we are headed for a repeat of 2012, I won't say that we aren't. What I will say is that it was 62F today in Ithaca and I was lying on the couch with the window open reading a book. Felt like April. Nonetheless, I don't have a good feeling and we should all be prepared for a wacky ride. The real question is "what to do"? There is a concept called [Occum's Razor](#), it is actually a problem-solving principle that states that among competing hypotheses, the one with the fewest assumptions should be selected. In other words, the simplest of any possible solutions is usually the best. When it comes to preventing cold damage to trees or frost damage to buds, there have been a number of solutions tossed about. I tend to believe that the more you can affect the outcome by keeping to the clearest simplest path is generally the best course of action. Not that it always works out, but you have the best chance of it working out. First, we need to keep our trees from waking up too early. Our trees have exited endodormancy and all they need is warm temperatures to grow. the situation is exacerbated by the fact that, at least here in the Finger Lakes, we have no snow on the ground. None. The same is true for most places north of blizzard Jacob. There is frost in the ground but it is not very deep. There isn't even any ice on my pond. Or not very much. So, what can we do to keep the ground from warming up too quickly? Mulch, compost, reflective white covering -- these seem pretty simple, but nothing is as simple as a good foot or so of snow. Second, there are various sprays that can reflect heat off of the trees and keep the cold in (or the heat units from accumulating) -- these are all kind of stopgap and not 100%, but every little bit helps. Nonetheless, the trees are deacclimating and increasing their exposure to a cold snap the later we get into winter. They can deacclimate slightly, but they never recover their deep winter repose once they start to lose it. It is a downward slope from here on out. So assuming we're headed for an early bloom, what can we do at that stage to protect the blossoms from frost. There is very little that is proven. Increasing the brix content of leaf and floral tissue needs to start at green-tip. You can't imbue a strong spike with one or two applications. You almost have to assume you're going to have frost and start with various applications to increase the brix. Ditto for cytokinins. It needs to start early (like last year) and in the soil with strong roots and microbial environment. The best solution is to have some way to generate heat in the orchard, to raise the temps just enough to prevent the important floral parts from freezing or incurring damage. There are a number of ways to do this -- smudge pots being one, old way. But as much as you need heat you need smoke to keep the heat in (like clouds do), especially if the frost is on a clear night (and they usually are). The thing is that any remedy has its limits. At 25F you have a fair chance of anything working. But at 19F, not so much. The temp range where damage or death occurs is fairly narrow. Above 28F (w/o heavy frost) I sleep at night, below 25F I am usually out doing something. Below 22F I go back to bed because it is really out of my hands. A few years ago I did try to increase the brix levels of tissue starting at tight cluster -- knowing full well that cold temps were coming. I don't know how it affected the internal status of the tissue, but I do know that by grace of Gaia we had a crop that year -- at 19F in full bloom. It wasn't huge, but it was a crop. I am putting together a list of resources one should consider when dealing with cold or frost. I'll post here when I am done (within the week). Some are discrete activities, others need ongoing attention. For now, NOT pruning or doing anything that will trigger the trees to grow is key. I'd love hear what others have tried and feel that works (or not) in the past. Each of our experiences will differ and so the devil is in the details. I know this is a long post and doesn't give anyone specific things to do right now, but only as the curtain is pulled back will we really know what is needed. So, hope for the best, prepare for the worst. More to come.....

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

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[Paul Weir](#)

[Re: the pace of spring](#)

February 03, 2016 08:16PM

Registered: 11 years ago

Posts: 187

Good thread

In a 2012 season repeat scenario, a spook y proposition for our friends in the NE, a preseason application of Surround Kaolin to reflect light and heat is intriguing.

We had 2 inches of snow fall yesterday with temps in the 20's and 30's . . . the forecast for the end of the week and thereafter has highs into the mid 60's for us with no further freeze in the forecast. Here in the mid elevation Sierra Nevada mountains, in early February, daytime temps in the mid 60's are right on the cusp of all time records for daily highs. By early next week, the forecast is calling for sunshine and highs around 65.

Been a decent winter for us, so far, considered by many to be 'normal' here, but those that watch the weather closely and the patterns of the landscape know how quickly the tide can turn.

I really appreciate hearing so many of us sharing the triggers seen at our places and those feelings that follows in our guts . . .

[Gopher Hill Apples](#)

Zone 8 in California

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