

2020 Tree Woes: What happened and what to do about it.

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This past winter and spring have been challenging for trees along the Front Range. Our very cold October 2019 "first frost," a largely dry winter, and another damaging freeze in mid-April have taken their toll on both evergreens and deciduous trees. Many evergreens are brown in whole or in sections; some deciduous trees have not leafed out or only have leaves on a few branches.

Even if your tree looks dead, it may be able to recover given time. Check the twigs; if they are pliable and supple then the tree may be able to set new buds and grow new leaves. The most important factor at this state is stress-mitigation. This means, primarily, watering! Make sure your trees are getting adequate water through the growing season and winter-water this coming winter during dry periods. Although it's a tempting and often-proposed solution, **do not fertilize your trees if they are stressed**. Dead branches can be removed, but do not cut into living tissue—this can be difficult to determine in the present circumstance.

Remember that trees operate "in the long-term," and any new growth this year will be generated from stored energy. You'll have to mitigate stress and give a little extra TLC for two to three years to bring your tree's health safely out of the woods.

Summary of our weather

- We had a "mini" polar vortex in mid-October, where temperatures dropped into the low teens from the 80s. We very quickly warmed up again, then dropped to 3 degrees F.
- We had the driest January on record since 2003.
- In the beginning of February, we had a high of 75 degrees with a nighttime temperature of -15.
- On Easter weekend, April 11-12, we had a temperature swing of 55 degrees; from 70 to 15.
- On April 15-16, we had another roller coaster drop of 35 degrees, reaching lows again in the teens.
- It's been a very dry spring, overall.
- Here's a good summary of our crazy weather from the Washington Post: <https://www.washingtonpost.com/weather/2019/11/01/denver-endured-month-record-breaking-temperature-swings-summer-winter-back-again/>

Trees Not Leafing Out

- This is affecting various species--ash, honeylocust, fruit trees, catalpa, maples, and others.
- The buds probably froze on these trees during the April freezing weather. The leaves were starting to unfurl and those cold temperatures zapped them.
- Some trees will be able to push new growth and some will not. You will have to wait to see.
- A lot will depend on the tree's previous stressors and if it has enough resources to do this--it's going to be very stressful to the tree to set new buds and push growth. It will use a lot of the tree's stored resources.
- Avoid additional stress like pruning or fertilization. Continue with regular watering. Trees usually set the buds for next year in the summer. Monitor and hope for the best.

- You may ask: But there's a row of _____ trees and two look great and others look dead. Why? Well, it comes down to the genetics of the tree and the tree's overall health. Kind of like how some people always get colds, while others never do.
- Again, it's a wait and see. I think it's too soon to make the decision to remove them or not. Remember--it's only early June!

Evergreen Browning

- Many evergreens are looking poorly. Pines experienced worse winter damage than normal and may have bleached-brown needles. Yews, Arborvitae, and some Junipers are brown either in whole or in part.
- Again it's linked to temperature—it got very cold when trees were not prepared to be that cold. Ordinarily cold temperatures come on a bit more gradually, allowing the trees to complete physiological changes that protect them from extreme cold.
- It was a really dry winter! This only added to the stress of the trees.
- Consider species selection--arborvitae and yew are not species that are recommended for Colorado. These are eastern species that prefer higher moisture and humidity. While there are some beautiful specimens, many start to fail. Junipers are a much better option.
- Will these plants recover? Maybe. Foliage that is still brown/orange will likely die; like the deciduous trees, the hope is they will set buds for next year this summer. It will take a few years for evergreens to "mask" the damage. Many native pines have already pushed out "candles" of fresh green needles.