

To Freeze or not to Freeze
Greg Grant, Tyler Morning Telegraph
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Oh my. What a year. COVID, hurricanes, snowstorms, and who knows what else. Unfortunately, there are many things that we have no control over, with weather topping the list. Sadly, with our record freezing temperatures we will now have to deal with damaged, dying, or dead plants. Texas is no stranger to Arctic blasts with visits about once a decade. However, this latest Polar Vortex was even more severe, only rivaled by one early in my career in the 1980's.

Severe cold can cause all types of problems for plants. Freezing temperatures can damage plants by rupturing plant cells as ice crystals form and rapid changes in temperatures occur. Thankfully a healthy snow cover serves as insulation often protecting lower stems and root systems.

The signs of cold damage can be confusing, since some damage may not be evident until months later. Leaves and tender shoots subjected to freezing temperatures appear water-soaked and wilted. These tissues will usually turn black within a few days. Evergreens, such as roses and azaleas may have dead foliage and damaged stems. I hate to say it, but we probably lost most of the blooms on our azaleas, especially the common Southern Indicas. There will probably be stem damage like bark splitting as well.

This type of damage occurs as a splitting of the stem or bark, typically near the base of the plant due to sudden changes in temperature. Once they become obvious, split stems and branches should be pruned to unaffected growth. Hopefully most of our damaged shrubs like roses and azaleas will at least resprout from the ground once warm weather is here. Sometimes cold injury is not readily apparent until the plant starts to flower or actively grow again. At this point, cut out the dead and leave the living.

After a freeze or frost, the leaves of damaged herbaceous plants may immediately appear wilted and water soaked. However, the freeze injury to the twigs, branches, or trunks often doesn't appear on shrubs

and trees right away. Wait a few days and then use a knife or thumbnail to scrape the outer bark on young branches. Freeze-damaged areas will be brown beneath the bark; healthy tissues will be green or white.

Delay pruning until time reveals the areas that are living and dead and until the threat of additional frosts or freezes has passed. Leaving dead limbs and foliage at the tops of plants will help protect the lower leaves and branches from nighttime radiation loss. Pruning after a freeze does not improve the outcome. Also, plants that are pruned tend to be invigorated more quickly, which may set them up for further damage in our unpredictable cycling of warm and cold temperatures.

So, do not be in a hurry to prune or remove your damaged plants. Some plants may appear dead but may not be. Corrective pruning should not be started until the full extent of the damage can be determined. Visit the Tyler Botanical Garden (at the Tyler Rose Garden) to see how my Smith County Master Gardeners are dealing with these issues.

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Image caption: *Plants with freeze damage like many roses will hopefully resprout from the ground.*

