## GARDENING BY THE MOON

# TREE DAMAGE FROM FEBRUARY FREEZE EVENT 

Submitted by<br>Dr. Robert E. Moon<br>April, 2021

There are many questions about why some trees in the same block or surrounding area are fully leafed out following the freezing event in February and why some trees are struggling to come out. The answer to this is complicated. Oak trees are propagated from acorns and each tree can have a different progeny. Trees are like us. We are all human but have a different gene pool and just as we react differently to stress and disease, so do these trees. Some trees of the same species are more tolerant to the stress of the freezing temperatures.

To help understand, trees have four sets of buds they can leaf out from. Three of these buds are seldom used because they are backup buds. In the spring, most trees leaf out on the primary buds. If you have trees in your area that turned brown, dropped leaves immediately and have already fully leafed out, these trees did so on the primary buds. But if trees turned brown after the freeze and did not drop the brown leaves immediately, the primary buds were damaged. These trees will be slower to leaf out because they will have to rely on the backup buds. A tree has 4 levels of buds, primary, secondary, tertiary and adventitious. If a tree has to rely on backup buds, it takes longer for these buds to react and start to leaf out. If all buds were damaged, a tree may never leaf out.

Another word of caution, many trees have splits or freeze cracks in the trunk bark. These cracks can be on trees that have already leafed out as well as those slow to recover. If there is severe damage to the vascular system of the tree, these trees could still die once they are under the stress from extreme Texas heat this summer.

For now, my best advice is for you to wait and give your tree and surrounding trees plenty of time to bud out before declaring them dead and removing. We will know more about tree survival next spring.

