

Why Trees Fail

AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

Trees don't live forever. Just like all living things they have a life cycle. Some grow fast but don't live long. Some grow slow and live a long time. Some trees develop "health" issues and start to fall apart. The bottom line is that trees have a life cycle and at some point in time all trees die but before they die they start to give us warning signs that there are issues. The challenge, at least in the plains states, is that trees nearly become sacred and if there is still one leaf left on the tree, homeowners are reluctant to cut it down.

Which leads us to the next issue, tree failures. Tree failures are when branches, large or small, or entire trees, come crashing down unexpectedly. Sometimes this is apparently out of the blue. Other times it's during windy weather, severe thunderstorms, ice storms or simply excessively wet weather. While many homeowners are caught off guard by tree failures, there are frequently warning signs that are overlooked, ignored or through wishful thinking, due to the iconic status of a tree that still has one leaf, that the tree is really okay!

Trees that are sound and healthy usually don't have failures barring extreme weather. I make a hobby of evaluating tree failures (I know, what a surprise!). Most tree failures come down to just a few tree species (elm, hackberry or silver maple) and there are frequently issues from internal rot as evidenced by holes in the tree, old damage or mushrooms growing out of the tree trunk itself or roots at the base of the tree.

Sometimes multiple branches emerge close together at very narrow angles of attachment. As these branches grow they literally run into each other and a lot of bark gets caught between the branches or trunks. It may look like they are well attached, but this is often a site of failure. Early corrective action by removing all but one of these branches/trunks would have likely kept this from happening.

Some people think that topping a tree (cutting off large branches part way up thereby removing much of the crown of the tree) removes weight and keeps the tree from having issues. On the contrary, it does just the opposite. The large cuts never heal, this allows easy access of tree decay fungi and stimulates the tree to create a proliferation of new growth that is not attached to the center of the branches, but only attached to the bark. Never, ever top a tree under any circumstances!

Excessive moisture, especially at this time of year, can stimulate a tree to put on lots of new growth. The leaves and new branch growth add a lot of weight. Then have a rainstorm add more weight from the rain and you have that one ounce more of weight than the branch can hold, and boom, branch failure! Perfectly health trees can blow over due to wet soils, but more often than not, there are other issues that have reduced or restricted adequate root growth causing the tree to not be well anchored. Old injuries at the base of the tree, restricted root zones due to sidewalks, streets or other hard surfaces, even roots that were cut due to construction can all decrease the stability of a large tree.

If a tree is in the middle of nowhere and its failure won't land it on top of anything, then I wouldn't worry about it. But if you have a tree in your yard that has holes in it, obvious rotten areas and especially if there are mushrooms growing up around the base of it or right out of the trunk, these are red flags that you need to contact me or a certified arborist to come and evaluate the health of that tree!