

## Reducing Storm Damage to Trees

### AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

Once of the questions that seems to come up after every wind or ice storm is what can homeowners do to reduce storm damage in their trees. Which is a very valid question. We greatly value the trees in our landscape and don't want anything to happen to them. Properly sited trees can provide summer shade to our homes which reduces energy costs due to reduced air conditioning needs. In the winter, windbreaks can reduce cold north winds and reduce how much energy it takes to keep our homes warm. If a tree does fail and comes down, or drops, limbs, we have the expense of cleaning up the debris, or possibly even home repairs if the tree falls on our house. So reducing the risk of tree damage is a very valid concern.

There is no way to prevent tree damage other than not to plant a tree. I don't think many of us want that however. The number one way to reduce storm damage goes clear back to the beginning and starts with selecting the right species for the location. When people ask for advice on a tree to plant, three times out of four one of the first things they want is a tree that grows fast. There is an inverse relationship between fast growing trees and strong trees. Trees that grow the fastest are also the weakest. There's a lot of complex biomechanics at work here but simply put, grow fast, die young and fall apart in the process

I have an odd hobby or driving around after strong wind storms to see what tree damage there is. I pay attention to if it was a total tree uprooting, limb breakage and then the condition of that tree and whether there may have been indications that tree was a risk. In recent storms, 80% of the downed limbs were from silver maple, Siberian elm (what some people call Chinese elm), ornamental pear (Bradford pear), and cottonwood. All four of these species grow fast and are well known to have weak wood or, in the case of the pear, structural problems that cause them to fall apart once they reach 20 years of age or so. I can not recommend any of these trees to be planted and have a clear conscience!

Sometimes damage is due to mismanagement by the homeowner. Hackberry also ranks high on the list of trees with damage. Hackberry trees grow moderately fast and if well managed, they are a good tree for the first 50 years. Too often homeowners wait too long to do some corrective pruning and they wind up taking off limbs that are too big. Once a large limb (over about four inches in diameter) is removed a tree will try to "seal off" inside the tree with special cell layers and then try to seal over the outside with tissue called callous tissue. Maples, hackberries and elms do a very poor job of sealing these wounds off from the rest of the heartwood of the tree which results in decay organisms getting established in the tree. This becomes apparent when limbs break out and you see big rotten areas or even hollow spots in the tree. Frequently you can see openings into trees from old pruning cuts or you'll see mushrooms (fungal decay organism fruiting structures) growing out of the trunk of the tree. None of these things are a good sign.

The absolute worst thing that a homeowner can do is to have their tree topped. In this horrendous procedure a tree is essentially stubbed (cut) back to a few very large branches which leaves large pruning cuts that will never heal because they are not at natural joints. The tree responds by putting out a proliferation of new growth on those cut ends. Unfortunately, this growth is only attached by the bark. These cuts never heal and merely hasten the decay of a tree. If you are thinking about topping a tree, you might as well just cut it down! Always hire a trained arborist to do your pruning.