Decline is a generic term used when tree health is getting worse and trees are dying. It is an unfortunate term in that it tells us very little – yes, trees are looking poor, and yes, some are dying. But why? That’s the important question we need answered so we can properly manage the stand.

Declines happen in all different types of trees, including pine, oak, ash, and cypress. In South Carolina, the two most common types of decline are pine decline and oak decline. Pine decline typically appears as yellowing or discolored needles, canopy loss, and branch dieback, and may end with tree mortality. It can appear in any southern pine, though it is most common in loblolly pine stands. Stands on steeper slopes are more susceptible, as are those on poor soils. Drought is often a contributing factor. The truth is, except for southern pine beetle infestations, we often don’t know exactly what causes pines to die. We do know that management plays a very important role, however – particularly when it comes to maintaining proper basal area or stocking in your pine stand. Overstocked stands are stressed stands, and stressed stands are more susceptible to pine bark beetles. Several pine root weevil species have previously been implicated as causing pine decline, but this is not true – there are no root-feeding weevils that can kill healthy, mature pine trees (though the pine reproduction weevils can kill seedlings – that’s a completely different issue!). When these root-feeding weevils are present they’re just a sign that trees are in poor health – the key to successful management is to figure out what made them in poor health in the first place.

The same goes for oak decline – we usually see oak stands with sparse canopies, dying branches, and sometimes dead trees. Often there will be wood-boring beetles present, such as bark and ambrosia beetles. These didn’t cause the poor tree health, they’re just responding to the chemical signals given off by dying trees. Again, site factors and drought are common culprits, as is poor stand management – especially overstocking.

To prevent decline of your stands, practice good silviculture. Keep stocking and basal area within advised ranges and control competing vegetation and invasive species. Plant the right tree species in appropriate sites. A soil test can help diagnose any soil fertility issues that may be contributing to tree health. Your Clemson Extension County agent and the specialists can help you diagnose any forest health issues you may have.