



**After the Fire:
Tree Recovery?**

**by Dave Root, Assistant Forester
Colorado State Forest Service, Woodland Park, Colorado
Presentation to Black Forest Community on August 21, 2013**

Where to Start?

- Hazard Trees
- Consumed Foliage
- Scorched Foliage



Hazard Trees

- Hazard trees have structural damage to the wood, branches, or roots.
- **Remove Hazard Trees Now!**



Rules of Thumb for Hazard Trees:

- **If it could fall on anybody or anything, it is a hazard.**
- **Check for broken limbs (widow makers) as well as damaged trunks.**
- **If there is any doubt, take it out!**



Safety Warning

- **Because the amount and strength of holding wood is uncertain, hazard trees are best removed by professional sawyers or arborists.**



Consumed Needles

All the needles were burned in the fire.

Survival is highly unlikely.

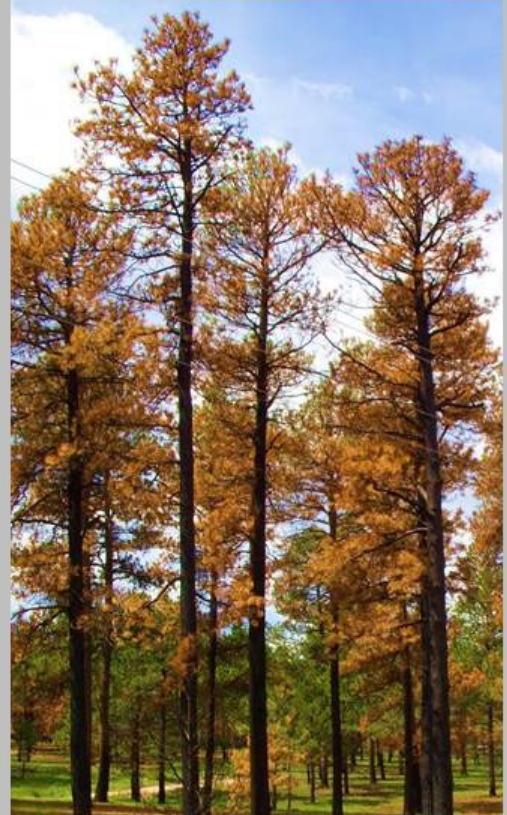
Except for hazard trees, removal should not take precedence over soil stabilization!



Scorched Trees

Wait and see

- Trees can recover from severe scorching
 - New growth should be apparent by June.
- Trees with more than 50% green needles greater than 9 inches in diameter have the best chance to survive.
- Mulch lightly from the stem to 1.5 times the distance of the longest branches to help damaged trees survive.
 - Mulch retains soil moisture and reduces soil temperatures to help roots recover.
- Monitor trees closely for signs of bark beetle attack for the next several years.



The Cambium, Underneath the Bark

- The Cambium is a single layer of living cells between the bark and the wood.
 - Thick bark on ponderosa protects the cambium from heat.
 - Peel off a small section of bark on opposite sides of the tree. If the tissue underneath is milky white it is living.
 - Dead cambium has dry, brown or gray color, or a fermented smell.
 - Be cautious about wounding already stressed trees.
- Notice in the photo how the blackened bark is only on the surface.



Closing Words About the New Forest

- Don't "restore" Black Forest to the way it was. That's how we got into this mess in the first place.
- Where there are live survivor trees, new trees will seed in naturally.
- Replant with ponderosa pine.
- The two thirds of Black Forest that didn't burn still need hazard reduction and forest health thinning.



The Last Word . . . Be Safe



Dave Root,
Assistant District Forester
(719) 687-2921
daveroot@lamar.colostate.edu