

Gambel Oak and Serviceberry Survivability Is Determined By Amount of Damage To:

Crown



Trunk



Roots



For More Information:

Additional information may be obtained from the following sources:

Colorado State Forest Service
www.colostate.edu/Depts/CSFS

USDA Forest Service
www.fs.fed.us



How to:



- Identify Gambel Oak and Serviceberry that will survive fire damage
- Determine amount of fire injury which will kill Oak and Serviceberry
- Make management decisions regarding Oak and Serviceberry after fire

Gambel Oak & Serviceberry

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Gambel Oak and Saskatoon Serviceberry are commonly found growing together in Western Colorado between 4,000 and 8,500 feet elevation.

Crown Scorch:

Gambel Oak and Serviceberry have a dense growth habit with an abundance of fine textured fuels throughout the plant. Both species are readily top killed in moderate to severe fires where flame lengths exceed 3 feet in length. If burned foliage remains on the branches there is a chance that the branch and buds are still viable and capable of resprouting.



Trunk Scorch:

Larger branches on mature tree-like oak can be up to three-quarters of an inch thick and could survive a low intensity fire. Serviceberry branches on old plants could survive a small low intensity fire but the bark is thinner than that of Gambel Oak.



Root Damage:

Oak and Serviceberry resprout from the root crown and subsurface roots following even the most intense wildfire events.



Assessing Damage:

Crown: When the leaves are just scorched and remain on the branches secondary buds may open to create new branches. Scratch the bark wherever leaves remain attached to check the stem. If the wood underneath the bark is green and moist the branch is still alive and could support any new leaves that are produced by secondary buds.

Trunk: If leaves are still remaining on the smaller branches cut into or remove a small section to expose the wood under the bark. If the wood is green and somewhat moist then the stem is still alive and capable of transporting water and minerals.

Roots/Root Collar: The root systems of oak and serviceberry are wide and extensive. Some roots can grow as deep as 30 inches below the surface. As a result they are insulated from even the hottest fires.

Protective Action:

Due to the fire dependent characteristics of both oak and serviceberry no action is necessary to protect the plant. Above ground portions that have completely burned will eventually fall. Standing burned stems are usually not hazardous due to the short over all height of the plant.

Notes:

Both Oak and Serviceberry are fire adapted species. They have extensive root systems that are both close to the soil surface and vertically oriented. In fact Serviceberry is a fire dependent plant and will eventually succumb to shading by taller trees if not rejuvenated by fire.



What to Do?