



SOUTHWEST FIRE SCIENCE CONSORTIUM

JFSP FIRE SCIENCE EXCHANGE NETWORK



What is a Forest Fuel Treatment?

Introduction

Forest fuel treatments are used by managers for ecological restoration and reducing fire hazard. Due to past management decisions and long-term fire exclusion, forests are more dense and are susceptible to severe wildfires. Fuel treatments aim to reduce the intensity and size of wildfires, increase species diversity, and restore forests to their historical condition.

Fuel Treatment Types

There are two common types of treatments:

- Mechanical thinning: cutting and clearing wood and brush
- Prescribed fire: burning existing fuel before more accumulates

Based on proximity to homes and communities one treatment may be used over the other. Several research studies show a combination of thinning and burning is most effective in promoting forest resilience to wildfire.

Forest Fuel Treatment Strategies and Advantages



Strategy	Effect	Advantage
Prescribed fire to reduce ground fuels	Lowers fire intensity and severity, flames won't grow so tall and reach the canopy	Easier to control wildfires, trees are less likely to catch on fire
Increase canopy height by pruning (cutting lower branches)	Fire on ground cannot reach the canopy	Trees are less likely to catch on fire
Decrease canopy density by thinning	Trees are farther away from each other	Fire cannot as easily spread from tree to tree
Keep big trees	Fewer trees die in intense fires (bigger trees are heartier)	Restores forest to its historical form

(Modified from Agee and Skinner 2005)

This factsheet and corresponding materials are available online at swfireconsortium.org

Factsheet edited from ERI Working Paper 27-Fuel Treatment Longevity

(<http://nau.edu/ERI/Publications-Media/Working-Papers/>)



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