

Burned Area Emergency Rehabilitation

Improved Fire Rehabilitation Mulching Techniques

California



The Trough Fire (2001) on the Mendocino National Forest provided an area to perfect two aerial mulching techniques to rehabilitate areas burned in wildfires. Applying mulch by helicopter is much faster, safer and in most cases less costly than applying by hand. Also, helicopter drops can occur on high erosion sites not accessible to hand crews. Feasibility and cost of applications were evaluated.

In 2001, aerial rice straw spreading started on the Mendocino, and being successful, was then used on burned areas of the Shasta-Trinity and Stanislaus Forests. Cooperators with the Mendocino National Forest were California Straw Supply Coop, West Wind Helicopters and San Dimas Technological and Development Center.



San Dimas and the rice straw coop worked together to perfect straw chopping and baling techniques to produce a straw bale that would break apart as it fell through the air. The West Wind helicopter pilot used various speeds and altitudes to get the best straw coverage.

Erickson Air-Crane funded the aerial hydromulch technique. They used a newly developed bonded fiber matrix, paper, water and wheat seed to mulch steep stream banks. The large helicopter was very maneuverable and could lay a 40-foot

strip of hydromulch (1/2 acre) in one pass. The hydromulch binds with the soil, creating an erosion resistant "skin" on the soil surface.

Both treatments are being monitored for longevity of material and effects on native plant regeneration.

Aerial straw mulching is also being used this year on the Haymen Fire (Colorado), Biscuit Fire (Oregon) and McCauley Fire (Sequoia).

This winter the Forest Hydrologist will be making a presentation at the 2002 Fire Conference. This presentation will cover the "how to's" of site evaluation, area layout, helicopter use, application techniques, straw specifications and effectiveness monitoring.