

subsequent erosion processes. This work aims to evaluate the effect on soil functionality and vegetation recovery after wildfire of two different soil restoration techniques (Contour-felled log erosion barrier and contour-felled log debris) used at slope scale and after 5 years of the wildfire event. Postfire management strategies were applied between 3 and 5 months after the fire in four areas and in triplicate (log erosion barriers, contour-felled log debris, burn and not action and unburned). Results showed similar species coverage and grass or shrubs species. Wildfire affected areas without any intervention and unaffected areas by fire presented different grass or shrubs species (but pioneer species) and lower species coverage. Species diversity and richness were similar comparing all the study plots. Our results also indicate that plots under Contour-felled log erosion barriers presented higher soil organic matter in comparison to plots under contour-felled log debris, wildfire-affected areas without any intervention or unaffected areas by fire. Postfire restoration practices generate microbiological soil properties recovery, reaching similar values to those found at control plots. This work highlights that postfire restoration practices are important for recovering soil organic matter and nutrients and vegetation after wildfires.

Keywords: Contour-felled log erosion barrier; contour-felled log debris; forest fires; soil quality; species richness.

1. INTRODUCCIÓN

Los trabajos de restauración post-incendio que se realizan en zonas quemadas deben estar recogidas en un plan de restauración, que tendrá unos objetivos establecidos dependiendo de la severidad del incendio, los regímenes de precipitación de la zona y de los objetivos de gestión forestal de la superficie incendiada (Alloza et al., 2014). Cada una de las actuaciones realizadas debe ser evaluada tras su ejecución en términos de eficacia (capacidad para conseguir el objetivo fijado), eficiencia (capacidad de optimizar los recursos empleados en la realización de la actuación) y efectividad (capacidad de seleccionar la actuación más correcta y realizarla de la mejor manera posible). Para ello es fundamental la investigación