

LAND RESTORATION AFTER A BIG FIRE EVENT: OAKS VERSUS PINES

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Galicia in the European Union (EU) has the highest incidence of fire in the region, and approximately 1.65 million ha of Galicia (55 percent) burned in the last four decades. Recovery of burned areas is one of the aims of the Galician Government to restore degraded land. Galicia is heavily influenced by the Gulf Stream, and temperatures are higher than found at similar latitudes (e.g., New York) in the Northern Hemisphere. Two EU projects, namely LIFE-VAIA (Value Afforestation of damaged woods with innovative agroforestry [LIFE20 CCA/IT/001630]) and LIFE-SILFORE (LIFE21-CCA-ES-LIFE SILFORE/101074445), were conducted to examine how restoration should be conducted by forest owners. The LIFE-VAIA project analyzed the evolution of 11 forest species, including 4 oaks adapted to Mediterranean (*Quercus ilex*, *Q. suber*), Atlantic (*Q. robur*), or transitional (*Q. pyrenaica*) areas in the Monte de los Remedios in Quiroga. The other forest species tested were broadleaves (*Castanea sativa*, *Sorbus aria*, *Betula alba*, *Acer pseudoplatanus*, and *Prunus avium*) and one conifer (*Pinus pinaster*). Mediterranean performed worse than Atlantic or transitional oaks, probably due to the low amount of calcium in the soil and the soil pH. The LIFE-SILFORE project addressed the conservation and management of resilient agroforestry systems through silvopasture to examine how *Q. robur* and *P. pinaster* can establish after a forest fire. The main experiment in Galicia combined a set of treatments linked with the addition of fertilizers (different doses of rabbit [fermented or not] and horse manure), organic amendments (pruned oak residues and straw) and legume sowing (*Trifolium repens* and *Lotus corniculatus*). Results showed that the survival and growth of oak was improved when the rabbit fermented manure was applied, oak residues were applied, and legume was sown.

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