From Forest Nursery Notes, Summer 2009

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New Forests (2009) 37:313–331
DOI 10.1007/s11056-008-9126-3

Field performance of *Pinus halepensis* planted in Mediterranean arid conditions: relative influence of seedling morphology and mineral nutrition

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Received: 24 July 2008 / Accepted: 24 November 2008 / Published online: 10 December 2008

Abstract In Mediterranean arid regions, relatively small planting stock has traditionally been used in an attempt to reduce drought susceptibility, though few studies have examined influences of initial seedling morphology and nutrition on long-term plantation establishment. We fertilized *Pinus halepensis* Mill. seedlings in the nursery with controlled release fertilizer (CRF) varying in formulations and rates; 9-13-18 and 17-10-10 (N-P-K) formulations at 3, 5 and 7 g l^{-1} substrate plus an unfertilized control and we evaluated growth and survival 7 years after planting in arid conditions in Almería province, southeast Spain. Interactions between initial height and fertilizer treatments occurred during the first 3 years; initial size advantages of specific fertilizer treatments (7 g l^{-1} of 9-13-18 and

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