

Evaluation of Mediterranean-type vegetation for weedicide activity

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ABSTRACT

Intact fresh leaves of 19 perennial Mediterranean-type species were extracted in water and bioassayed for their allelopathic activity. Activity was first evaluated by the germination of *Triticum aestivum* and *Lactuca sativa*. Extracts that significantly reduced germination in *L. sativa* but not in *T. aestivum* were then bioassayed on the weed *Phalaris minor* to evaluate their weedcidal potential. The influence of both pH and osmotic pressure of the water extracts on total germination was examined in all bioassays. Of the five species whose water extracts were selected, only two *Cistus ladanifer* and *Lavandula stoechas* showed promise as sources of weedicides, because they inhibited germination of the weed seeds with no effect or even stimulation in germination of the crop seeds.

Key words : Allelopathy, *Cistus ladanifer*, germination, *Lactuca sativa*, *Lavandula stoechas*, *Phalaris minor*, *Triticum aestivum*, water extracts, weedicide

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