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Title: Herbicidal Activity of Volatiles from Coriander, Winter Savory, Cotton Lavender, and Thyme Isolated by Hydrodistillation and Supercritical Fluid Extraction

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Abstract: The volatiles from *Coriandrum sativum* L., *Satureja montana* L., *Santolina chamaecyparissus* L., and *Thymus vulgaris* L. were isolated by hydrodistillation (essential oil) and supercritical fluid extraction (volatile oil). Their effect on seed germination and root and shoot growth of the surviving seedlings of four crops (*Zea mays* L., *Triticum durum* L., *Pisum sativum* L., and *Lactuca sativa* L.) and two weeds (*Portulaca oleracea* L. and *Vicia sativa* L.) was investigated and compared with those of two synthetic herbicides, Agrocide and Prowl. The volatile oils of thyme and cotton lavender seemed to be promising alternatives to the synthetic herbicides because they were the least injurious to the crop species. The essential oil of winter savory, on the other hand, affected both crop and weeds and can be appropriate for uncultivated fields.

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