

The Effect of Soil in the Allelopathic Potential of *Artemisia herba-alba* and *Oudneya africana* Crude Powder on Growth of Weeds

Authors : Salhi Nesrine, Salama M. El-Darier, Halilat M. El-Taher

Abstract : The present study aimed to investigate the effect of two type of soil (clay and sandy soils) in the potential allelopathic effects of *Artemisia herba-alba*, *Oudneya africana* crude powder on some growth parameters and phytomass of two weeds (*Bromus tectorum* and *Melilotus indica*) under laboratory conditions (pot experiment). The experimental findings have reported that the donor species crude powder concentrations were suppressing to shoot length (SL), root length (RL), fresh and dry weight of shoot and root (SFw, RFw, SDw and RDw, respectively and the leaf number (LN)) in both soil types and caused a gradual reduction particularly when they are high. However, the reduction degree was varied and species, concentration dependent. The suppressive effect of all the eight donors on the two weedy species was in the following order *Bromus tectorum* > *Melilotus indica*. Generally, the growth parameters of two recipient species were significantly decreased with the increase of each of the donor species crude powder concentration levels. Concerning the type of soil the t-test indicated that the difference was insignificant between clay and sandy soils.

Keywords : allelopathy, soil, *Artemisia herba-alba*, *Oudneya africana*, growth, weeds

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