Abstract:

Allelopathy investigations can be an opportunity to make new generation of Bioherbicides and growth inhibitors.To investigate the Allelopathic effect of six medicinal plants (*Artemisia absinthium, Datura stramonium, Eucalyptus globolus, Hypericum perforatum, Nerium oleander, Salvia officinalis*) on three current weed species in Iran (*Amaranthus retroflexus, Chenopodium album, Portulaca oleracea*), three factorial experiment, each by 3 factors (Weed Species in 3 level, Medicinal Plants in 6 levels and Extract Saturation in 4 Levels 100%, 70%, 40% and distilled water as control) conducted on completely randomized design base.One of the experiments conducted pre-emergence and two other done post emergence. Results showed that the *Eucalyptus globolus* has most inhibitory effect between studied medicinal plants.In addition, the allelopathic effect of extracts, increased by increasing the saturation.According to grouping medicinal plants in 3 main groups (Essential oil plants group containing *Eucalyptus globolus* and *Salvia* officinalis, Alkaloid plants group containing *Datura stramonium* and *Nerium oleander* and Flavonoid plants group containing *Artemisia absinthium* and *Hypericum perforatum*), this result obtained that Essential Oil Plants, have greater allelopathic effect in comparison of two other groups.Results also showed that the pre-emergence factors are more affected by medicinal plants extracts, rather than post-emergence factors.

Keywords: *Medicinal plants, Allelopathy, Weeds, Bioherbicides*.

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Investigation of controlling 3 weed species using 6 medicinal plant aqueous extracts.

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