

**P-145 (197)****THE INVESTIGATION OF ALLELOPATHIC POTENTIAL OF CUMIN AND BLACK CUMIN ESSENTIAL OILS ON THE GERMINATION OF *LOLIUM PERENNE* L. AND *SYSIMBERIUM IRIO* L**

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In order to investigate the allelopathic effects of cumin and black cumin in the control of two important weeds namely *Lolium perenne* L. and *Sysimberium irio* L., an experiment performed in Agriculture college lab in Islamic Azad University- Jahrom branch in complete randomized design with 4 replications. Treatments were 0, 250, 500, 1000, and 2000 ppm of essential oils. Results indicated the significant effects of these essential oils in control and inhibition of seed germination in these two weed species and the seeds of *Sysimberiumirio* L. was known as more sensitive so that its germination was completely inhibited in concentration of 250 ppm essential oil. Evaluation of shoot and root length and dry weight of germinated seedlings also showed that the mentioned essential oil has a high potential in the control of these two weed species and the comparison indicated that black cumin can play more effectively role.

**Keywords:** *Cuminum cyminum* L., *Bunium persicum* B.Fedtsch, *Lolium perenne* L., *Sysimberium irio* L., Allelopathic effect