

## **Effects of different surface sterilizers on seed germination and contamination of king of bitters (*Andrographis paniculata* Nees).**

### **Abstract**

*Andrographis paniculata* is a medicinal plant belongs to the plant family Acanthaceae. The plant is commonly propagated by seed. High contamination and low germination are two prevalent problems occur during germination and embryo growth stages. Approaches to decrease the seed contamination level and increasing germination percentage of *Andrographis paniculata* seeds were studied using a combination of chemical treatments with different sterilizer at different concentrations and exposure times in a factorial experiment based on Randomized Complete Block Design (RCBD) with three replications. Analysis of variance indicated that the effect of treatments were significant ( $p \leq 0.01$ ) on seed germination and contamination percentage (GP&CP), as well as on mean germination time (MGT), while non significant effects were observed on Number of Days to First Germination (NDFG) and Average Germination Percentage (AGP). The maximum (12.5%) and the minimum contamination percentage (2.2%) were observed in 4 weeks after treating in control treatment and treatment with 10% NaOCI for 10 min respectively. The results showed that 10% NaOCI for 10 min treatments is an effective option for decreasing the seed contamination percentage in this plant.

**Keyword:** *Andrographis paniculata*; Seed sterilization; Seed germination and contamination.