

Influence of different priming treatments on the germination and seedling growth of *Phlomis cancellata*

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ABSTRACT:

In order to study the effects of different methods of priming on germination and seedling growth of *Phlomis cancellata*, a completely randomized design with six treatments (control, soaking, KNO₃ (2%), GA₃ 250, GA₃ 500 and GA₃ 750 ppm) and three replications were conducted. Results showed that highest germination percentage, germination rate and seed vigor were recorded by GA₃ at 250 ppm. Minimum rate and germination percentage were observed in the control and KNO₃. Gibberellic acid treatments had the greatest influence on growth indexes than other treatments. Among growth parameters, the maximum seedling length, dry and fresh weight were observed in GA₃ at 250 ppm. From these results and developmental research about the effect of different priming techniques, a better understanding can be obtained of seed germination and seedling growth of *Phlomis*.

Keywords:

GA₃, KNO₃, Priming, Seed germination, Seed vigor.