

# **Efficacy of Plant Extracts Against *Alternaria* Leaf Blight (*Alternaria helianthi*) of Sunflower**

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## **ABSTRACT**

*Alternaria* leaf blight caused by *Alternaria helianthi* (Hansf.) Tubaki and Nishihara is one of the major diseases of Sunflower. In the present study different plant extracts, i.e., *Allium sativum* (garlic), *Azadirachta indica* (neem), *Pongamia pinata*, *Eucalyptus globules*, *Catheranthus roseus*, *Jatropha multifida*, *Polyalthia longifolia*, *Tridax procumbense*, *Calotropis jelodona* and *Prosopis julifera* were evaluated against *Alternaria* leaf blight under *in vitro* and *in vivo* conditions. Plant extracts were prepared with sterile water at concentrations of 0.5, 1.0, 2.0 and 5.0 %. Among different concentrations tested, reduction in spore germination of *A. helianthi* was recorded with 0.5 % of all plant extracts. Garlic extract was found to be effective with 85.1% reduction in spore germination over control followed by neem (83.3%) and *P. pinata* (75.9 %). In pot culture studies, these extracts were sprayed three times at different intervals on sunflower plants artificially inoculated with *A. helianthi*. Garlic showed disease reduction of 52.0% over pathogen check followed by neem.

**Key words :** *Alternaria helianthi*, Botanicals, Disease severity, Spore germination, Whole plant assay method