

# Control of *Fusarium* wilt of Chilli (*Capsicum annuum* L.) by Crude Plant Extracts

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Wilt is an important disease of chilli crop causing significant reduction in yield. In the present study, the pathogenic fungus was isolated from the infected plant parts and was identified as *Fusarium oxysporum* f. sp. *capsici* based on the morphological and cultural features. In this context, an eco-friendly approach was followed by using plant extracts to control the pathogen. The antifungal effects of aqueous extracts of five plant species namely, *Azadirachta indica*, *Ocimum sanctum*, *Zingiber officinale*, *Allium sativum* and *Allium cepa* were tested *in vitro* against *Fusarium oxysporum* f. sp. *capsici* by poisoned food technique. The results revealed that all plant extracts showed significant ( $P < 0.05$ ) reduction in the growth of pathogen. Plant extracts at 10% concentration were significantly better in the inhibitory effect than those at 5% concentration. Among the different extracts at 10% concentration, *Allium sativum* was found to be the most effective (53%) in inhibiting the mycelial growth of the fungus followed by *Azadirachta indica* (47.7%) and *Ocimum sanctum* (36.3%). The least inhibitory effect was found in the crude extract of *Zingiber officinale*. Based on the above results, it could be concluded that *Allium sativum* and *Azadirachta indica* extracts can be used to control *Fusarium oxysporum* f. sp. *capsici*. These extracts are cost effective, non-hazardous and useful in maintaining ecological balance.