

Antifungal activity of medicinal plants against plant pathogenic fungus *Colletotrichum falcatum*

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Abstract

The antifungal activity of eight different medicinal plants namely Aloe vera, Ocimum sanctum, Cenetella asiatica, Piper betle, Calotropis gigantea, Vitex negundo, Ocimum basilicum and Azadirachta indica were tested against plant pathogenic fungus (red rot disease causing agent) *Colletotrichum falcatum* by agar well –diffusion method. The plants leaves were extracted with various solvents like chloroform, ethanol and aqueous. Among the different plant tested, all the three solvents of the Vitex negundo showed maximum antifungal activity (25 mm) against the plant pathogen tested. Whereas the other plant extracts were showed moderate to minimum antifungal activity

Synthetic fungicides are currently used as primary means for the control of plant disease. However, the alternative control methods are needed because of the negative public perceptions about the use of synthetic chemicals, resistance to fungicide among fungal pathogens, and high development cost of new chemicals. The uses of plant-derived products as disease control agents have been studied, since they tend to have low mammalian toxicity, less environmental effects and wide public acceptance (Lee et al., 2007). In agriculture, the crop loss due to plant pathogens has become major concern. Increased usage of different chemicals based products to control these pathogens has resulted in problems like residual effect of chemicals in agri-based products, increased resistance for chemicals in target pathogens and environmental pollution. India has about 45,000 plant species and among them, several thousands have been claimed to possess medicinal properties against human diseases. Crude extracts of some well known medicinal plants are used to control some of the plants pathogens (Kubo et al., 1981).

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