

RESEARCH ARTICLE

Eco friendly management of *Ralstonia solanacearum* causing rhizome wilt of ginger with bioagents, botanicals and neem based commercial formulations

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ABSTRACT

Rhizome wilt has been an important threat to the cultivation of ginger. To manage the disease, an *in vitro* evaluation of antagonistic microorganisms, botanicals and commercial neem based formulations were tested against *Ralstonia solanacearum*, an incitant of rhizome wilt. The investigation was carried out to evaluate commercially available plant based pesticides and biological control agents which are relatively safe, economical and non-hazardous and can be used successfully for the management of bacterial diseases in plants. The results of the experiment indicated that Soapnut + Meswak at 20 per cent showed highest inhibition of the bacterium with 1.41 cm inhibition, followed by the combined effect of cow urine + cow dung + lime (fermented for 48 – 72 hours) at 20 per cent which showed an inhibition of 1.25 cm and both the results were on par with each other and were found significantly superior over other treatments. Among the biocontrol agents, *Pseudomonas fluorescens* resulted in maximum inhibition of *Ralstonia solanacearum* and among the neem based commercial formulation, ahook has shown significantly superior efficacy at all the concentrations with greater efficacy (1.31 cm) at 30 per cent concentration. Whereas, other products were less and moderately effective among interactions.

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