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RESEARCH PAPER

Antifungal activity of brown, red and green alga seaweed extracts against *Macrophomina phaseolina* (Tassi) Goid., in pigeonpea var. CO (Rg) 7

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Abstract : *In vitro* studies was conducted to evaluate the effect of seaweed extracts of *Caulerpa racemosa* (green alga), *Sargassum myricocystum* (brown alga) and *Gracilaria edulis* (red alga) against the mycelial growth of *Macrophomina phaseolina* at different concentrations of 10, 15, 20, 25 and 30 per cent along with control by poison food technique. The result revealed that extract of *S. myricocystum* showed significant antifungal activity against pathogen followed by *G. edulis* and *C. racemosa*. *S. myricocystum* (30%) extract recorded the lowest mycelial growth (45.2, 50.6, 58.4 and 61.5 mm) at 24, 48, 72 and 96 hrs after incubation. Among the antagonists tested against *Macrophomina phaseolina*, the fungal antagonists *Trichoderma viride* was found to be most effective in reducing the mycelial growth than the bacterial antagonist *Pseudomonas fluorescens.* Both the antagonistic of fungi and bacteria has compatability with seaweed extracts in all the concentrations.

Key Words : Seaweeds, Soil borne pathogen, Red gram, *Macrophomina phaseolina*

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