



ChemTech

International Journal of ChemTech Research

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.9, pp 365-372, 2017

Formulation and Bio-efficacy of Emulsifiable Concentrates of *Pongamia pinnata* and *Jatropha curcas* Seed Oils against Plant Pathogens

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Abstract : In present work, developed Emulsifiable Concentrates (ECs) from *Pongamia pinnata*, *Jatropha curcas* seed oil and their mixed oil in biodegradable solvent, nontoxic surfactants and evaluated their *in-vitro* antifungal activity against *Rhizoctonia solani* and *Sclerotium rolfsii* fungi. GC-MS analysis confirmed the presence of phytochemical constituents in both seed oils. Developed ECs were passed physico-chemical parameters. Formulations, PPEC-30 (30% oil), JCEC-30 (30%) and mixed oil EC (MEC-30) showed LD₅₀ values 197.32, 185.4 and 41.69 ppm against *R. solani* while LD₅₀ values 437.38, 849.29 and 369.2 ppm against *S. rolfsii* respectively. Low LD₅₀ value of developed ECs than other ingredient revealed that formulations were found more effective against pathogens so these formulations may be used as bio-fungicides.

Key Words : Antifungal Activities, Emulsifiable Concentrate, *J. curcas*, *P. pinnata*, Plant Pathogens.

Upma Singh *et al* / International Journal of ChemTech Research, 2017, 10(9): 365-372.
