

EVALUATION OF DIFFERENT FUNGICIDES AND PLANT EXTRACTS FOR MANAGEMENT OF LEAF RUST OF *QUERCUS SERRATA* THUNB CAUSED BY *CRONARTIUM QUERCUUM* MIYABE EX SHIRAI

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ABSTRACT

Commercially available seven fungicides viz. Dhanustin 50% WP (Carbendazim 50% WP), Beam (Tricyclazole 75% WP), Xantho (Hexaconazole 5 EC), Result (Propiconazole 25 EC), Kitazin 48 EC (Iprobenfos), Indofil Z 78 (Zineb 75% WP), Dhanuka M-45 (Mancozeb 75% WP) and aqueous extracts of seven medicinally valued plant species viz. *Azadirachta indica* (leaf), *Melia azedarach* (leaf), *Vitex trifolia* (leaf), *Melothria perpusilla* (leaf), *Phlogacanthus thyrsoiflorus* (leaf), *Acorus calamus* (rhizome), and *Zingiber officinale* (rhizome) were tested to assess their efficacy on management of leaf rust of an Oak tree (*Quercus serrata*) caused by *Cronartium quercuum* under field condition. In general, foliar spray at different concentrations of fungicides and plant extracts significantly reduced the percent disease index (PDI). Application of higher concentrations of tested fungicides and the plant extracts showed better disease control. Among the fungicides, 0.3% Dhanuka was found to be the most effective, which showed the highest value (80.19%) of percent disease control (PDC) in comparison to untreated plants and leaf extract of *A. indica* and *V. trifolia* at 15% concentration were also found to be most effective recording the highest value (78.94%) of percent disease control among the plant extracts.

KEYWORDS: Disease CONTROL, Disease Severity, *Quercus Serrata*, Leaf Rust, Fungicides, Plant Extracts

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