

EFFECTIVENESS OF A NEW MICROBE BASED ORGANIC BIO-FUNGICIDE ON CONTROLLING BLISTER BLIGHT (*Exobacidium vexans*) IN TEA (*Camelia sinensis*)

P.G.C.L. Jayawardhana¹, T.A.B.D. Sanjeewa¹ and S.H. Yapa²

*Department of Plant Sciences, Faculty of Agriculture,
Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.*

*²Marginalized Organic Producers' Association (MOPA), No 04, Kumudu Mawatha,
Primerose Gardens, Kandy, Sri Lanka.*

Blister blight in Tea (*Camelia sinensis*), caused by *Exobacidium vexans* is a major economically important leaf disease. It is currently controlled by regular application of copper fungicides, which are the cheapest and most effective fungicides recommended for blister blight. However, copper fungicides cause problems such as copper toxicity in a frequent application and environmental pollution. Therefore, microbe based organic bio-fungicide is a better alternative to reduce blister blight disease, especially in organic tea cultivation. This study was conducted using three treatments and two replicates in each treatment (R₁, R₂). Then treatments arranged in Randomized Complete Block Design as T₁: untreated (control), T₂: microbe based organic bio-fungicide, T₃: copper fungicide. One hundred shoots with a bud plus three leaves were selected randomly to obtain data related to blister blight severity. The second and third leaf from the bud were assessed using the 0 – 6 score of blister blight assessment key. There was a significant difference among different tea fields with respect to number of infected leaves. There is no significant difference in disease severity index according to the treatment or field. However, disease severity index was significantly declined with the application of treatments, T₃ and T₂ ($p \leq 0.05$). The results imply that microbe based organic bio-fungicide can be applied as an effective alternative to mitigate the blister blight disease in tea.

Keywords: Blister blight, Disease severity index, Microbe based organic bio fungicide, Organic tea cultivations