Formulation of Specific Culture Media for *In-vitro* Cultivation of *Exobasidium vexans* Massee

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Blister blight is the most important and destructive foliar disease of tea that caused by an obligate parasite *Exobasidium vexans* Massee. Further investigation of this fungus in *in-vitro* condition has been restricted due to non-availability of effective culture media. This study has been conducted to find an effective culture media for the pathogen. Disease infected leaf samples for inoculation and blister blight susceptible healthy tea leaves for media preparation were collected around Uva Wellassa University of Sri Lanka, Badulla. The tested media were prepared by referencing standard PDA media using dextrose and agar with 50 g of dried fresh tea leaves powder, 250 mL of hot water tea extraction, 0.7% instant green tea and 0.7% instant black tea instead of potato as four treatments in four replicates using PDA as negative control and 0.7% calcium carbonate amended PDA as positive control. Each medium was inoculated with 30 spores mL^{-1} pure spore concentration of the pathogen and incubated under 28°C for observations. Colony diameter and number of days to show visible growth and respective colony morphologies on each media were measured. The Koch's postulate was done by whole plant inoculation method for verification of the pathogen. The average growth area on the media with fresh tea leaf powder, hot water extraction, instant green tea, instant black tea were recorded as 60.82 cm^2, 36.32 cm^2, 9.62 cm^2, 8.55 cm^2 respectively. The number of days to show visible growth was same for all media. The culture media with particle size 0.5 mm dried fresh tea leaf powder that prepared using blister blight susceptible cultivar TRI 2025 was recorded the highest growth. The minimum growth was recorded in the media with instant black tea. Standard PDA media with particle size 0.5 mm dried fresh tea leaf powder that prepared using blister blight susceptible cultivar TRI 2025 is the best formulation for *in-vitro* cultivation of *Exobasidium vexans* Massee.

Keywords: Blister blight, *Exobasidium vexans* Massee, Culture media, *In-vitro*