IN VITRO SCREENING OF SELECTED FUNGICIDES AGAINST BLACK LEAF SPOT PATHOGEN IN OKRA

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ABSTRACT

Okra black leaf spot disease is a major disease of strode okra which is caused by *Cercospora abelmusachi*. A fungus that belongs to the division Dothideomycetidae. To find suitable fungicides against black leaf spot pathogen was carried out in the laboratory of the Department of Biosystems Technology, Faculty of Technology, Eastern University, Sri Lanka. In the first experiment okra black leaf spot pathogen was isolated from the infected leaves and was cultured on potato dextrose agar (PDA) media.

In the second experiment, different fungicides were applied to the PDA culture Media. Mancozeb 80% WP (0.4g/200ml), Thiram 80% WP (0.25g/200ml), Homai (thiophanate-methyl 50%, thiram 30%) (0.2g/200ml) and Sulfur 80% (1g/200ml) were taken as the treatments of this experiment with PDA without fungicide as the control. The experiment was laid out in a Completely Randomized Design with five treatments and four replicates.

The results revealed that Mancozeb and Homai fungicides completely inhibited the colony growth of the pathogen *in vitro*. Therefore, it was concluded from this experiment that the fungicides mancozeb and homai are effective in the control of okra black leaf spot fungus under *in vitro* conditions.

Keywords: Okra black leaf spot, Fungicide, *Cercospora abelmusachi*. Isolation, potato dextrose agar media

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