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Efficacy of Fungicides and *Tricoderma viride* in controlling white root disease of cinnamon (*Cinnamomum zeylanicum* Blume)

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A study was undertaken to examine symptom development and the effect of various fungicides to control white root disease of cinnamon. First experiment was conducted in white root disease infected young cinnamon plantation at Heellakanda in Matara district, which is located near to the rubber plantation. The disease symptoms were recorded regularly under the field condition. Second experiment was conducted in the same field, treating infected plants by using selected fungicides, such as tebuconazol 5 ml/10 l (Folicur), hexaconazol 20 ml/10 l (Eraser), sulphur 200 g/ l (Hemite sulphur), *Tricoderma viride* 200 ml of solution/ 10 l (Bio-Vaccine) and control (non- treated). Fungus infected cinnamon bushes were randomly selected for the each treatment. Total amount of plants and number of death plants in bushes were separately counted before the application of treatments. Once in a month, treatments were applied (100 ml of solution / bush). Percentage of average death and time taken to recover disease symptoms were recorded every month. According to the results of the first experiment, first visible symptom on the foliage was the colour change of leaves to off-green and yellowish. Initially this symptom was observed only on one stem in cinnamon bush and the entire canopy of affected tree was gradually turning yellowish brown and branches showed die-back causing death of the plant. Infected bushes were seen as patches in the field. According to the second experiment, death plant percentage was decreased significantly with time in treated cinnamon bushes compared to non-treated bushes (control). When compared the overall results during the experimental period, hexaconazol treated bushes had the lowest dead plant percentage (5.33%). It was also observed that seven month after the treatment, disease was controlled due to application of hexaconazol, tebuconazol and *Tricoderma viride*. In the view of experimental parameters, infected trees can be identified initially on the yellowish leaves of a plant in the bush and at that period treatments should be applied to control the disease. Hexaconazol can be described as the most suitable fungicide to control white root disease in young cinnamon plantations.

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