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Evaluation of the efficacy of water soluble Sulfur to control Leaf Blight Disease (*Colletotrichum gloeosporioides*) and Leaf Gall Mites (*Eriophyes boisi*) of Cinnamon (*Cinnamomum zeylanicum* Blume) nursery

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Main objectives of this research were to examine the efficacy of water soluble sulfur to control leaf blight disease and leaf gall mites, and impact of wettable sulfur to plant growth. This research was conducted in Cinnamon Research Station, Matara, Sri Lanka in 2008 to 2009. Department recommended potting mixture was used to fill the poly bags. Bags were arranged into randomized complete block design with three replicates consisting 50 poly bags in each plot. Five plants were maintained in each bag and treatments were applied fourteen days interval. Common pesticides, fungicides and plant growth promoters were used as treatments. As insecticides, Imidacloprid (Tatamida) (10ml/10L), Goda (By-product of leaf oil distillation) (100%), Sulfur (Hemite sulfur) (100g/10L), Spinosad (Success) (10ml/ 10L) and Neem oil (100ml/ 10L) with Teepol (13ml/10L) were used. 1% Bordeaux mixture, Tebuconazole (Orius) (5ml/ 10L), Sulfur dust (Hemite sulfur) (100g/ 10L), Goda (By-product of leaf oil distillation) (100%) and Thiram (15g/ 10L) were used as fungicides. Wormy compost (100%) and Focus Hi- Cal (40ml/ 10L) were used as plant growth promoters. Plant height, number of leaves per plant, severity of leaf blight disease and leaf gall mites were recorded bi-weekly and data were calculated as an average after six months period of nursery stage to obtain most accurate result. Highest number of stem length was recorded in Spinosad (15.88 cm) and Sulfur (15.06 cm) treated plots with comparison to other treatments and maximum number of leaves (6.38) was observed in Sulfur plots. Among the treated fungicides, leaf blight disease (1.35%) was significantly reduced ($p<0.05$) by sulfur. Mite gall damage (3.39%) was also significantly reduced ($p< 0.001$) in sulfur treated plots. According to the costs analysis, comparatively low amount of cost was recorded for sulfur. The results of this experiment suggested that the water soluble sulfur dust is ideal treatment for control leaf blight disease and mite gall damage in the cinnamon with induce plant growth.

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