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PRELIMINARY ASSESSMENT OF CLOVE (*SYZYGIUM AROMATICUM*), CINNAMON (*CINNAMOMUM ZEYLANICUM*), HOLY BASIL (*OCIMUM TENUIFLORUM*) AND BALLOON VINE (*CARDIOSPERMUM HALICACABUM*) ON GROWTH OF *COLLETOTRICHUM* ISOLATE

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The present study was conducted to control the growth of *Colletotrichum* spp. associated with papaya anthracnose disease by using extracts of some medicinal plants and commercial fungicides. Morphologically different four *Colletotrichum* isolates (ISO 1, ISO 2, ISO 3 and ISO 4) were obtained from anthracnose disease infected papaya fruits, collected from 15 locations in Jaffna district of Sri Lanka. When compared to the control, cinnamon extract showed 11, 18, 9 and 14 % of inhibition on the growth of ISO 1, ISO 2, ISO 3 and ISO 4 isolates respectively. Clove extract completely inhibited the growth of isolates ISO 1 and ISO 2 and showed more than 50% of inhibition in the growth of isolates ISO 3 and ISO 4. Balloon vine extract showed significant inhibition in the growth of all four *Colletotrichum* isolates. Holy basil slightly inhibited the ISO 1 (7%) and ISO 2 (5%) but not the isolates ISO 3 and ISO 4 after 6 days of incubation at room temperature ($31 \pm 2^\circ\text{C}$). Recommended dosage of Homai (Thiophanate-methyl 50% + Thiram 30% (W/W) WP) fungicide completely inhibited the mycelia growth of all isolates *in vitro*. Fungicides Green mangozeb (Mancozeb 80% (W/W) WP) and Topsin (Thiophanate-methyl 70% (W/W) WP) completely inhibited the mycelia growth of ISO 2 and ISO 3 after 6 days of incubation at room temperature ($31 \pm 2^\circ\text{C}$). The study revealed that crude extract of selected medicinal plants exhibit fungicidal activities against tested fungi. These results support the potential use of these plant extracts in the management of *Colletotrichum* spp. associated with papaya anthracnose disease.

Keywords: *balloon vine, cinnamon, clove, Colletotrichum* spp, *medicinal plants and papaya fruit*

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