

Original Research Article

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Management of Coffee White Stem borer *Xylotrechus quadripes* (Chevrolat, 1863) (Coleoptera: Cerambycidae) in the Lower Pulney Hills, India

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ABSTRACT

Keywords

Coffee, white stem borer, bio-efficacy, bio-agents, synthetic insecticides, coffee yield

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The bio-efficacy of bio-agents viz., *Beauveria bassiana* 2% A.S. @ 10ml/lit, *Bacillus subtilis* @ 10/lit and azadirachtin 1% EC @ 1ml/lit and chemical insecticide viz., chlorpyrifos 20 EC @ 3ml/lit, chlorantraniliprole 20 SC @ 0.5ml/lit and fipronil 40% + imidacloprid 40% WG @ 0.5g/lit were assessed against coffee white stem borer *Xylotrechus quadripes* (Chevrolat, 1863) (Cerambycidae: Coleoptera) in lower Pulney hills, Tamil Nadu. Coinciding with the adult emergence, three sprays were given: I spray (first week of April, 2018), II spray (first week of October, 2018) and III spray (last week of October, 2018) in two field trials, compared with untreated control. In both field trials the maximum control was observed in chlorpyrifos 20 EC + azadirachtin 1% EC @ 3ml + 1ml (45.56 % and 36.67 %) followed by chlorpyrifos 20 EC @ 3ml/lit (45.56% and 37.72%), *Beauveria bassiana* 2% A.S. @ 10ml/lit (48.89% and 43.33%) and chlorantraniliprole 20 SC @ 0.5ml/lit (51.67% and 46.11%) as against control (84.44% and 80.56%).

Introduction

Coffee (*Coffea arabica*) the most important perennial beverage plant is believed to have been introduced into India in the Chikmagalur hills in 1600 AD by a Muslim pilgrim, Bababudan from Yemen (Central Coffee Research Institute (CCRI, 2003). In the late 1820's coffee plantations were established in South India by the British. At present in India,

coffee (*arabica* and *robusta*) cultivation is mainly confined to the states of Karnataka (53.8%), Kerala (18.9%), Tamil Nadu (7.8%) and other parts of North Eastern India (1.8%). The global coffee bean production is surplus against consumption accounting to 99.11 lakh tonnes/ year with 3.38 per cent share from India. The productivity of coffee in India is 765kg/ha. In Tamil Nadu, coffee is mainly produced in the Nilgiris, Shevroy hills, Pulney hills and Anamalai hills in 13,436 ha.