

SCIENTIFIC NOTE

Occurrence of *Scaptocoris castanea* Perty (Hemiptera: Cydnidae) Damaging *Azadirachta indica* (Meliaceae) Seedlings in Brazil

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Abstract

Neem (*Azadirachta indica*) seedlings were found infested by the brown burrower bug, *Scaptocoris castanea* Perty, in December 2009, in the county of Tupaciguara, Minas Gerais state. Symptoms observed varied from leaf yellowing and stem drying, reduction in root size and number to plant death. This is the first report of *S. castanea* attacking neem plants.

The neem tree, *Azadirachta indica*, is originally from India and produces bactericidal, insecticidal, nematocidal and fungicidal molecules. It was introduced in Brazil in 1986 (Martinez 2002) and is cultivated in the major arid regions of the world due to its rusticity and adaptation to degraded areas (Koul 2004).

Its use is diversified; however, the most striking use is for the chemical control of agricultural pests due to the low toxicity to mammals, pollinators and fish (see review by Isman 2006). Although neem seed extracts present insecticidal properties, young plants are susceptible to several insect pests (Schmutterer 1998, Ahmed 2008, Kiyanthi & Mikunthan 2009). In Brazil, until now, the only reported pests were leaf cutting ants of the genera *Atta* and *Acromyrmex* (Hymenoptera: Formicidae) (Neves & Carpanezzi 2008) and the shot-hole borer *Apate terabrans* (Pallas) (Coleoptera: Bostrychidae) (Souza *et al* 2009).

We describe here a study done on a one hectare orchard containing nearly 840 neem seedlings in the county of Tupaciguara, Minas Gerais state, Fazenda Santa Maria, which were planted on November 2009.

Leaf yellowing and wilting were observed thirty days after planting, probably as a symptom of the attack of the root system by a pest, in approximately 15% of the area (123 seedlings). Leaves turned yellow and wilted, reaching permanent wilting point, resulting in death of 31% (38 seedlings) of the attacked plants. Seedlings that did not die sprouted from the stem base, recovering the canopy (Fig 1). Forty symptomatic plants were uprooted to observe the root system. Darkening and reduction of the root system was observed, especially of the radicles. About 53 nymphs and adults of the brown burrower bug, *Scaptocoris castanea* Perty were observed per plant, varying from 28 to 75 bugs.

Three of the *Scaptocoris* species are named brown burrower bugs due to their burrowing habit and damage caused to plants (*S. castanea*, *S. carvalhoi* Becker and *S. buckupi* Becker). *Scaptocoris castanea* is characterized by presenting tarsi in fore and median legs, both in adults and nymphs, thus distinguishing from *S. carvalhoi*, in which the tarsi are lacking; the pattern of distribution of the setae in the median tibia, showing a dorsal glabrous area



Fig 1 Symptom evolution in *Azadirachta indica* seedlings attacked by *Scaptocoris castanea* in Tupaciguara, MG, 2009. a) healthy plant; b) yellowing plant; c) dead plant; d) plant covered by sprouts after intense pest attack.

in *S. castanea*, distinguishes it from *S. buckupi*. *Scaptocoris castanea* is usually larger and colored darker brown than the other species. *Scaptocoris castanea* is polyphagous, causing severe damage to several crops, especially grasses (Becker 1996), being reported in 22 cultivated plants, and at least seven grass species (Fernandes *et al* 2004). This is the first report of *S. castanea* attacking *A. indica*.

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