

EVALUATION OF THIAMETHOXAM AEROSOL APPLICATION AGAINST *BLATTELLA GERMANICA*

**¹MARCOS R. POTENZA, ²WASHINGTON L. B. FERREIRA,
²GUILHERME STAGNI, ³EDER FLÁVIO REDE, ¹FABRÍCIO C. REIS,
⁴RENATO RESENDE, AND ⁴ÁLVARO A. LEITE DA COSTA**

¹Instituto Biológico/APTA – Av. Cons. Rodrigues Alves, 1252, São Paulo/SP, 04014 002, Brazil

²Syngenta, LATAM - Av. Nações Unidas, 18001 4º andar São Paulo/SP 04795 900, Brazil

³Rua Júlio Prestes de Albuquerque, 405, Mairinque/SP, 18120 000, Brazil

⁴Rua Walter Barbosa Coelho, 107, Rio de Janeiro/RJ, 23815 340, Brazil

Abstract The control of the German cockroach *Blattella germanica* is a major challenge for Brazilian pest control operators (PCOs) due to their great capacity for reproduction and dispersal. The study described aimed to evaluate the efficacy of the insecticide Thiamethoxam (Optigard LT® 25% – Wettable Granules) when applied directly in cracks and crevices infested with *Blattella germanica* under laboratory and field conditions, using an aerosol generator (Micronizer®). In the laboratory study cracks and crevices were simulated with piles of bricks and the insecticide was applied using Micronizer®. The dosages tested were 8g, 12g and 16g of commercial product per liter of water, applied in approximately 2.5 ml per crack/crevice. Results showed excellent control with all three concentrations tested, ranging from 99% (dose: 12g/L) to 100% (doses: 8g/L and 16g/L) 1 hour after application. The field study was undertaken in the cities of São Paulo and Itaguaí (Brazil) and consisted of the localized applications of the insecticide Thiamethoxam (Optigard LT doses: 8g/L and 16g/L) in cracks and crevices using Micronizer®, by local PCOs. Results showed an excellent rate of control even with 75 % lower application volume than conventional methods. The applications (dilution: 8 or 16g/L of water) were made weekly (São Paulo) or biweekly (Itaguaí) at the beginning of treatment, and monthly thereafter, until the cockroach infestations were controlled, which occurred after 2 – 5 applications. The control rates obtained ranged from 90% to 100% and were measured with cockroach sticky traps, aspirations of insects and through visual assessment.