

**LABORATORY AND FIELD EVALUATION OF
A LIQUID BORIC ACID ANT BAIT****John H. Klotz¹, David F. Williams²,
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A boric acid - sucrose water bait was evaluated for efficacy against five species of urban pest ants: *Camponotus abdominalis floridanus* (Buckley), *Solenopsis invicta* Buren, *Tapinoma melanocephalum* (F.), *Linepithema humile* (Mayr), and *Monomorium pharaonis* (L.). LC₅₀s for *C. Abdominalis floridanus* and LC₉₀s for *S. invicta* showed a delayed toxicity to boric acid over a 10-fold range of concentration.

A continuous exposure to 0.25, 0.5, 0.75, and 1% boric acid - sucrose water bait was effective in reducing large laboratory colonies (60,000-75,000) of *S. invicta*. By the 6th wk there was a 90% reduction in population index at all four concentrations. A faster kill was obtained with smaller laboratory colonies (250-500 workers) of *T. melanocephalum*, *L. humile*, and *M. pharaonis* feeding continuously on a 1% boric acid-sucrose water bait. All colonies were completely eliminated by 10 wk. Only partial elimination of colonies was achieved when they were exposed to the boric acid bait for 3 d.

A bait application of a 1% boric acid in 10% sucrose water against infestations of *M. pharaonis* in an apartment complex achieved control within the 1st wk. In laboratory tests

ANTS

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Our research results show that low concentration ($\leq 1\%$) of boric acid are capable of eliminating ant colonies and that at these rates there is reduced repellency.

KEY WORDS

Ants, insecticidal bait, boric acid