

**COMPARATIVE FIELD STUDY of a NEW FORMULATION of GOLIATH® COCKROACH GEL against GERMAN COCKROACH (DICTYOPTERA: BLATTELLIDAE) and a MIXED POPULATION of AMERICAN COCKROACH and AUSTRALIAN COCKROACH (DICTYOPTERA: BLATTIDAE)**

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Field studies were conducted to compare the performance of a new formulation of Goliath® cockroach gel (0.3g/kg fipronil) to a range of other commercial cockroach gels. These were carried out in Sydney, NSW, Australia, against German cockroach, *Blattella germanica* (L.), and in Cairns, Queensland, Australia, against a mixed population of American cockroach, *Periplaneta americana* (L.) and Australian cockroach, *Periplaneta australasiae* (L.). In the Sydney study, there were 8 domestic properties with medium to heavy infestations of German cockroach in each treatment. In the Cairns study there were 10 domestic properties with medium to heavy infestations of American/Australian cockroaches in each treatment. For the German cockroach study, the application rate of the new Goliath® formulation was 1 placement (1 x 0.1g) per m<sup>2</sup> and 2 placements (2 x 0.1g) per m<sup>2</sup>; this was compared with Premise® gel, (21.5g/kg imidacloprid) at 2 x 0.1g per m<sup>2</sup>, Amdro® gel (20g/kg hydramethylnon), Magnetic Roach Food® gel (58g/kg boric acid) and Maxforce gel® (16.5g/kg hydramethylnon). The latter three products were applied at the placement rate of 2 x 0.25g per m<sup>2</sup>. The duration of the study was 3 months; post treatment assessments were made at 3, 7, and 14 days, 1 month, 2 months, and 3 months.

Against the German cockroach, the new Goliath® gel formulation gave a percentage reduction of 95.4% at the placement rate of 1 x 0.1g per m<sup>2</sup> and 88.7% reduction at the placement rate of 2 x 0.1g per m<sup>2</sup>, both at 3 months post treatment. The other commercial cockroach gels gave between 76.2% reduction and 88.3% percentage reduction at 3 months post treatment.

In the Cairns study, the new formulation of Goliath® gel at the placement of 2 x 0.1g per m<sup>2</sup> was comparable to Premise® gel at the same placement rate. The duration of the study in Cairns was 12 weeks. Post-treatment assessments were made at 2, 6, and 12 weeks.

Against a mixed population of American and Australian cockroach, the new formulation of Goliath® gel gave a percentage reduction of 96.8% at 12-weeks post treatment. This reduction was similar to that of Premise® gel, which gave 98.5% reduction at the same post-treatment assessment.