

ABSTRACT

The literature on leaf-cutting ant control and damage, and on the aerial application of toxic baits, was reviewed.

Two experiments were performed, one to determine the attractiveness of four baits under different conditions and the other to assess their effectiveness when broadcast at the rate of 2 lbs per acre. Both experiments were carried out on colonies of Acromyrmex octospinosus.

The baits used were Mirex 450, Parasol, an experimental aldrin bait and an experimental mirex bait. The two experimental baits were each treated with 2% by weight of methyltrichlorosilane to produce a waterproof coating.

Mirex 450, experimental mirex and experimental aldrin were significantly more attractive than Parasol when offered dry to Acromyrmex octospinosus. Experimental aldrin, experimental mirex and Parasol were significantly more attractive than Mirex 450 when offered after being wetted for five minutes, but experimental aldrin and experimental mirex were significantly more attractive than Mirex 450 and Parasol after being wetted for four hours.

In the field experiment a control consisting of citrus pulp only was included. All baits showed a significant kill when compared with the control one month after treatment. Experimental mirex and experimental aldrin both induced 100% inactivity 2½ weeks after treatment.

Control of A. octospinosus was shown to be feasible using a broadcast technique simulating aerial application and the two experimental waterproofed baits were shown to be as good as, if not better than, Mirex 450, and significantly better than Parasol.