



Fourth Article: Sharing with another inside the specialization- Pupilished

Article title	Efficacy of <i>Metarhizium anisopliae</i> Biopesticide Compared with Two Chitin Synthesis Inhibitors Hexythiazox and Etoxazole in <i>Tetranychus urticae</i> Koch Management
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Abstract

The biopesticide of *Metarhizium anisopliae* and two chitin synthetic inhibitors, Etoxazole and Hexythiazox, were utilized at recommended doses for comparative purposes. Our investigation illustrates their effect on the reduction of *Tetranychus urticae* population and biological aspects. The obtained results indicated that *M. anisopliae* is capable of reducing the mite stages by a high percentage after one day of treatment (71.81, 72.02 and 69.87) for eggs, immatures and adults, respectively. The hatchability % was 0.6, 9.99, 98.8, and 99.3% on etoxazole, hexythiazox, *M. anisopliae* treatments and control, respectively. Adulticidal efficacy was evaluated; incubation periods for both sexes were prolonged with all treated pesticides. A highly significant decline in fecundity in females was observed when using hexythiazox and *M. anisopliae* (42.5 and 35.3 egg/female). The present study provides practical data on their effectiveness in reducing *T. urticae* populations as agents eco-friendly for mite management. Moreover, it was found that *M. anisopliae* biopesticide was better at reducing mite populations and female fecundity than etoxazole and hexythiazox. Our investigation confirmed the effectiveness of etoxazole and hexythiazox as ovicides.