



RESEARCH ARTICLE :

Screening the populations of *Mallada boninensis* for cross resistance to newer molecules of insecticides

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SUMMARY : Positive resistance ratios were recorded when the population of *M. boninensis* was subjected to imidacloprid for four generations suggesting that the grubs showed resistance to the insecticide. Resistance ratio of 1.12 fold was recorded in the second generation and resistance ratio of 1.15 fold was recorded in the third generation. In the fourth generation grubs of *M. boninensis* when, treated with imidacloprid recorded resistance ratio of 1.25 fold in the fourth generation. Cross resistance ratio of 1.25 fold was recorded in the fifth generation to acetamiprid. Cross resistance ratio of 2.75 fold was recorded in the fifth generation to thiamethoxam. Cross resistance ratio of 2.09 fold was recorded in the fifth generation to buprofezin. Cross resistance ratio of 1.68 fold was recorded in the sixth generation to acetamiprid. Cross resistance ratio of 2.68 fold was recorded in the sixth generation to thiamethoxam. Cross resistance ratio of 1.93 fold was recorded in the sixth generation to buprofezin. Cross resistance ratio of 1.62 folds was recorded in the seventh generation to acetamiprid. Cross resistance ratio of 2.53 folds was recorded in the seventh generation to thiamethoxam and cross resistance ratio of 1.81 folds was recorded to buprofezin.

KEY WORDS :

M. boninensis,
Resistance, Cross
resistance,
Imidacloprid,
Acetamiprid,
Thiamethoxam,
Buprofezin

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