117/B

Potential use of *Beauveria bassiana* (Balsamo) Vuillemin for the control of pepper lace bug *Diconocoris distanti* (Drake)

M Dharmadasa[1*], D P P de Silva and T Nagalingam
Research Station, Department of Export Agriculture, Matale

Black pepper, *Piper nigrum* L. is cultivated in about 32,000 ha in Sri Lanka and earns about Rs. 1,234 mn annually. The average yield of pepper in Sri Lanka is about 240kg/ha which is very low when compared to the yield of other pepper growing countries, where one of the problems is pests and diseases prevailing in the cultivations. Pepper lacebug, *Diconocoris distanti* is the major pest in Sri Lanka that causes 15-20% yield loss. Use of insecticides for control of this pest is not advisable because pepper is mainly for the export market. Use of entomopathogenic fungi for control of this pest would be one of the solutions to overcome this problem.

Beauveria bassiana is one of the most intensively studied entomopathogenic fungi that shows pathogenicity in about 700 species of insects worldwide. Hence, it was decided to investigate the pathogenicity of locally isolated *B. bassiana* on pepper lacebug. It was isolated from the field collected infected coffee berry borer (*Hypothenemus hampei*) and cultured in potato dextrose agar (PDA) media. Different concentrations of conidia suspensions of fungi were tested against field collected pepper lace bug adults under the laboratory environment to investigate the pathogenicity. The fungal isolate tested showed greater mortality with mycosis among lace bugs. Estimated LC_{50} value was $1.3x10^8$ (95% confidence interval, $8.9x10^7$ to $2.2x10^8$), for the adult lacebug and the estimated LT_{50} value was 3.5 days. These data suggest a high potential for using *B. bassiana* in the management of *D. distanti* in pepper cultivations.

*maduradh@yahoo.com Tel: 066-2231249