

# Effect of temperature on growth and sporulation of the Brazilian strains *Beauveria bassiana* and *Metarhizium anisopliae* for control of the Bronze Bug *Thaumastocoris peregrinus*

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The bronze bug *Thaumastocoris peregrinus* Carpintero & Dellapé, 2006 (Hemiptera: Thaumastocoridae) is an eucalyptus pest of Australian origin, but it has causing damage to eucalyptus plantation in Brazil since 2008, year of introduction into the country.

The symptoms caused by this pest are leaf silvering, leaf bronzing and defoliation in susceptible Eucalyptus species or clones. The success for control of *T. peregrinus* involves the Classical biological control with an egg parasitoid *Cleruchoides noackae* Lin & Huber, 2007 (Hymenoptera: Mymaridae), introduced from Australia, and the inundative biological control using entomopathogenic fungi. Since, these microorganisms show advantages, because these are not closely related to the development of the insect, and can infect via contact.

Among the entomopathogenic fungi already reported infecting and causing mortality of the bronze bug, *Beauveria bassiana* and *Metarhizium anisopliae*

present good and promising levels of control. And considering that the temperature is limiting factor for fungi development and sporulation, the purpose of this study was to determine of the optimal temperature condition for the radial growth and sporulation of the two brazilian's strains, *B. bassiana* and *M. anisopliae*, for following mass production, and aiming the field application. For this Petri dishes were set up with MPA medium and each strain was incubated at 15, 20, 25, 30 and 37° C.

Both strains showed a higher radial growth at the temperature of 25° C. Sporulation of *B. bassiana* at low temperatures (15, 20 and 25° C) was significantly different of the high temperatures, and for *M. anisopliae* the highest temperatures can be considerate the optimal. The isolates did not grow at 37° C.

Further results on mass production and formulation will be discussed.