

Control of the Pest *Bemisia tabaci* With the Entomopathogenic Fungus *Beauveria bassiana* in a Geothermal Greenhouse in Southern Tunisia

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Abstract : The whitefly *Bemisia tabaci* is a cosmopolitan insect that causes serious damage to greenhouse crops. It is increasingly recognized that the use of biological control means such as entomopathogenic fungi presents a sustainable solution to integrated pest management programs. In order to reduce the use of chemical pesticides, *Beauveria bassiana* strain R444 was tested against eggs and second, third and fourth instar larvae of *B. tabaci* in a geothermal tomato greenhouse in southern Tunisia. This entomopathogenic fungus was compared to a chemical pesticide Imidacloprid and an untreated control. We found significant mortality of individuals caused by *B. bassiana* comparable to that caused by the chemical pesticide. After four weeks of follow-up, this fungus causes a mortality of eggs and larvae of *B. tabaci* that exceeds 60%. It shows that the use of entomopathogenic fungi can help reduce the use of pesticides to control *B. tabaci* on geothermal crops.

Keywords : entomopathogenic fungi, *Bemisia tabaci*, geothermal greenhouse, integrated pest management programs

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