Abstract

The susceptibility of larvae, pupae and adults of worker honey bees to 20 isolates of entomopathogenic fungi was evaluated. Of the isolates, twelve were of Beauveria bassiana (Bals.) Vuill. (HBb1-12), seven of Metarhizium anisopliae (Sorokin) (HMa1-7) and one of Paecilomyces fumosoroseus (Wize) (HP1). The most aggressive isolates against larvae, in doses of 10 conidia/individual, were HMa7, HMa1 and HBb4, with 100, 90 and 93% mortality, respectively; at the same doses, the HBb8 and HBb4 isolates were the most aggressive ones against pupae, as they caused 100 and 90% mortality, respectively. On adult bees a concentration of 1×10^7 conidia/ml was applied, and the isolates HBb4 and HBb7 caused the highest mortality, 92.6 and 100%, respectively. By contrast, the least aggressive isolates against adult bees were HBb1 and HMa4, with 12.7 and 2.2% mortality, respectively; the isolate HBb1 was the least aggressive against larvae, with 5.3% mortality; the isolates HMa3 and HBb1 caused 0% and 45% mortality of pupae, respectively. It is postulated that immature bees are highly susceptible to the tested fungi, contrasting with the adults, which showed a low susceptibility.

Keywords