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## Entomopathogenic infections to control the sunflower moth

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**S** unflower is one of the most important sources of vegetable oil in the world. Its importance is increased since has promise for climate change adaptation, because it can maintain stable yields across a wide variety of environmental conditions, including drought. Its main plague in much of America is *Homoeosoma electellum* (Hulst) (Lepidoptera: Pyralidae). The major part of its cycle develops protected within the seeds, stems and capitula tissues. Hence control this species is extremely difficult and usually the means are chemical insecticides. The intention of this work is to find effective but less polluting choices to these chemical insecticides. Field experiments were conducted evaluating the effectiveness of the entomopathogenic agents Heterorhabditis indica, *Beauveria bassiana* and *Metarhizium anisopliae* to reduce the affectations caused by Homoeosoma electellum. The tested doses were  $1.5 \times 10^8$  infective instars/ha,  $1.0 \times 10^{12}$  conidia/ha and  $2.8 \times 10^{13}$  conidia/ha respectively. It was found that it is possible to control the sunflower moth using any of the entomopathogenic agents proposed. The application of these agents, at the beginning of the infestation stage, significantly reduces the affectation produced by *Homoeosoma electellum* to sunflower productions. Two applications of *Beauveria bassiana* with an interval of five days and performing the first around 1 261 oCday of effective temperature, reduce about 70% the damage by *Homoeosoma electellum* in relation to the average of the control plots, three applications reduced the affectation more than 90%.

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