

Toxic Activity of the Entomopathogenic Fungus *Beauveria bassiana* on the Wistar Rat *Rattus norvegicus*

Authors : F. Haddadj, S. Hamdi, M. Khames, A. Kadi, S. Zenia, A. Smai, H. Saadi, B. Doumandji-Mitiche

Abstract : The use of a biopesticide based on a microorganism scale requires particular care including safety against the useful auxiliary fauna and mammals among other human beings. Due to its persistence in soil and its apparent human and animal safety, *Beauveria bassiana* is a cryptogram used for controlling pests organizations, particularly in the locust where its effectiveness has been proven by several highly studies. This fungus is also called for greater respect for biotic communities and the environment. Indeed, biopesticides have several environmental benefits: biodegradability, their activity and selectivity decrease unintended non-target species effects, decreased resistance to some of them. It is in this sense that we contribute by presenting our work on the safety of *B. bassiana* against mammals. For this we conducted a toxicological study of this fungus strain on Wistar rats *Rattus norvegicus*, first its effect on weight gain. In a second time were performed histological target organ is the liver. After 20 days of treatment, the results of the toxicological studies have shown that *B. bassiana* caused no change in the physiological state of rats or weight gain, behavior and diet. On cuts in liver histology revealed no disturbance on the organ.

Keywords : entomopathogenic fungus, *B. bassiana*, *Rattus norvegicus*, toxicological study, environment

Conference Title : ICABBBE 2015 : International Conference on Agricultural, Biotechnology, Biological and Biosystems Engineering

Conference Location : Paris, France

Conference Dates : July 20-21, 2015