

Chemical composition and toxicity of some agro waste-derived insecticides against Angoumois grain moth, *Sitotroga cerealella* (Olivier) [Lepidoptera: Gelechiidae] infesting stored paddy grains

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Abstract

Agriculture being one of the major practices in the world has contributed to environmental pollution, especially in developing countries where there were no equipment to recycle the agricultural wastes. Considering the high level of infestation of paddy by *Sitotroga cerealella* and the high level of pollution caused by agricultural wastes, this research investigated the chemical composition and toxicity of agro wastes (rice husk, maize cob, groundnut and cowpea pods) as eco-friendly protectants of paddy against *Sitotroga cerealella*. Parameters assessed include adult mortality, oviposition, adult emergence and egg hatchability. Gas chromatography and mass spectrophotometry were used to isolate and characterize the active compounds present in the most effective crude extract.