Efficacy of some plant extracts as storage protectants against *Callosobruchus maculatus*

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Presently, over 40% of crops are lost as a result of application of non-selective crop protection agents. The agrochemical industry is faced with increasing demand for the development of new crop protection agents that are safe for the environment and consumers. This research aimed at contributing to the collation and organization of baseline data on the status of natural insect-repelling and insecticidal agents; that is bioactive compounds that can serve these purposes especially for cowpea. It also aimed at developing crop protection agents that would do no harm to crops, farmers and consumers but would preferentially get rid of pests. The need to develop pest control measures as alternative to chemicals is a priority for scientists worldwide. Therefore, it is critical to find a cost-effective and non-toxic method to prevent pest attack on field or stored crops. In this study, *Azadirachta indica* (Neem) was used as a pest control agent for the main storage insect pests of cowpea—*Callosobruchus maculatus*. The pest repelling property of *Cymbopogon citratus* (Lemon grass) and *Citrus sinensis* (sweet orange) were also investigated. The compounds present in effective extracts were analyzed using Gas Chromatography/Mass spectrometry (GC/MS). Results obtained were compared with existing data. This led to the development of technique adoptable for small holder farmers and local food crop store owners.

Biography

Ojebode Mojisola Esther is a 2014 fellow of African Women in Agricultural Research and Development (AWARD). She completed her BSc at the Federal University of Technology Akure, Nigeria and is undergoing a research MSc program at the Department of Biochemistry (Nutritional and Industrial), University of Ibadan, Nigeria. She is the Director of Moepelorse resources for women empowerment and is dedicated to using her scientific research findings to improve the livelihood of rural farmers.

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