



ENTOMOLOGICAL SOCIETY OF NIGERIA



THE EDITOR

ENTOMOLOGY - A DYNAMIC APPROACH TO
SUSTAINABLE AGRICULTURE, HEALTH CARE
AND ECONOMIC DIVERSIFICATION

12-14 October 2018
University of Lagos
Akoka, Lagos State

POSTER SCIENTIFIC PAPER PRESENTATION SCHEDULES AND REFERENCE PAGES

Venue: General Biology Lab, UDUSOK

TUESDAY, 9TH OCTOBER, 2018 Time 4:00 PM – 6:00 PM

ABSTRACT NO.	AUTHOR(S)	TITLE
ESN/2018/SP/01	Salihu, I.M, Olayemi, I.K., Omalu, I.C.J., Makun, H.A Ukubuiwe A.C., Garba Y., Salubuyi, S.B., Yisa, S., Idris, I., and Nma-Estu, M.	Influence of Malathion-treated grains on developmental indices of beans weevil (<i>Callosobruchus maculatus</i>) during Storage
ESN/2018/SP/02	Salihu, I.M., Olayemi, I.K., Omalu, I.C.J., Makun, H.A., Adeniyi, K. A., Ibrahim, U.W., Ukubuiwe, C.C., Jibrin, A.I. and Aliyu, S.L.	Effects of Insecticide Pre-treatment on Reproductive Attributes of Beans Weevil (<i>Callosobruchus maculatus</i>) Infesting Stored White Cowpea (<i>Vigna unguiculata</i>)
ESN/2018/SP/03	Azare, B.A., Gimba U.N. and Bakare A.A.	Screening of Pesticidal Properties of Some Plants in FCT, Abuja Against Maize Weevil <i>Sitophilus zeamays</i> Under Laboratory Condition
ESN/2018/SP/04	Akintola, A.A, Olayemi, I.K., Adeniyi, K.A., Ocha, I.M., Abdullahi, M., Ismail, A., Anibaba, B.A. and Abdulrahman, M. A.	Entomopathogenic Potency Of Male Killing Endosymbionts In Insect Pest Control
ESN/2018/SP/05	A. U. Yusuf and M. Garba	Effect of Neem Leaf Extract on Field Insect Pests of Sweet Potato in Kano, Nigeria
ESN/2018/SP/06	Tongjura, J.D.C. Ombugadu, J.R, Abdulrazaq, H. and Amuga, G.A.	Evaluation of Anopheles mosquitoes resistance to pyrethroid insecticide in vegetable growing areas of Keffi local government area, Nasarawa state.
ESN/2018/SP/07	O. M. Azceez, U. Zakka and L. C. Nwogu	Evaluation of the effectiveness of different neem (<i>Azadirachta indica</i> A. Juss) components on cowpea seed damage reduction by <i>Callosobruchus maculatus</i> , Fabricius

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ABSTRACT

Ten plants were screened for their Pesticidal properties against the maize Weevil *Sitophilus zeamays* which was studied under laboratory condition between (30.2-40.6°C). Of these plant extracts, 287 (57.4%) mortality of weevil were observed. High numbers of mortality were common among some plant extracts. *Khaya Senegalensis* has the highest in mortality rate of weevil 43 (86%), second highest was *Celba pentandra* 35 (70%), *Ficus Platyphilla* 34 (68%), *Terminalia avicennoides* 33 (66%), *Ficus abutilifolia* 31 (62%), *Calotropis procera* 28 (56%), *Diospyros mespiliformis* 26 (52%), *Zizyhus mauritiana* 23 (46%), *Butyraspermum paradoxum* 17 (34%) and *Ficus polita* 17 (34%) of mortality of Weevil. Toxicity test consisted of between 10-50mg of different plant extracts with 1g of maize flour and 14 day old unsexed weevil were introduced, weevil mortality was recorded at 24 hours after treatment. There was significant relationship between the weevil mortality rate and the plant extracts ($p > 0.05$). The mortality rate of the pest increases with the relative increase of the concentration of the plant extracts therefore, indicates socio-economic implication.

Key words: Medicinal plants, Maize weevil, Toxicity Test, Mortality Rate

Entomopathogenic Potency of Male Killing Endosymbionts in Insect Pest Control

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Abstract

The phenomenon of endosymbiosis, or one organism living within another, has deeply impacted the evolution of life and continues to shape the ecology of countless species. For instance, the gut of insects is a rich fauna of Bacteria symbionts with immense and tremendous effect on the biology of their hosts. Manipulation of Host Reproduction, Sex determination, Feminization and Parthenogenesis are some of the reproductive, behavioural and physiological potentialities of these endosymbionts. A unique feature in their mode of action is through vertical and horizontal transmission from parents to offspring. Vertical transmission of endosymbionts through female hosts is a path explored by bacteria symbionts that engage in male killing. Occasionally, female-biased Sex Ratios (SR) have been found in the progeny of wild-caught female insects. The mated daughters of such females were found to produce daughters and few or no sons. Such SR traits which is found in diverse bacterial taxa, such as the genus *Spiroplasma* of the class *Mollicutes*, the genera *Rickettsia* and *Wolbachia* of the α subdivision of the division *Proteobacteria*, the genus *Arsenophonus* of the γ subdivision of the *Proteobacteria*, have been reported for a wide variety of insect taxa. The distinctly unique regulation in population dynamics, through male killing technique (MKT) or Female biased SR, when explored is a novel and potent tool for effective, ecologically friendly and enduring control of pest population. An attempt has been made in this review to elucidate the immeasurable gains of harnessing the potentials of MKT for the effective control of insect pests.

Keywords: Male Killing Technique, Sex Ratio, Endosymbionts

Effect of Neem Leaf Extract on Field Insect Pests of Sweet Potato in Kano, Nigeria

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ABSTRACT

Neem (*Azadirachta indica* A. Juss) leaf extract (NLE) was tested on field insect pests of sweet potato (*Ipomoea batatas*) using advanced breeding lines (King J and Delvia) and one local cultivar, *Danchina* during the 2017 rainy season at the Teaching and Research Farm of the Faculty of Agriculture, Bayero University, Kano. The experiment was laid out in Randomize Complete Block Design, replicated three times. Treatments consisted of NLE applied to the foliage of sweet potato at 33.33, 25 and 20 g/l concentrations levels, synthetic pesticides (Cypermethrin 10 EC) applied according to the manufacturer's recommendation