

République de Côte d'Ivoire

CENTRE D'EXCELLENCE AFRICAIN

sur le Changement Climatique, la Biodiversité et l'Agriculture Durable

3^{ème} CONFÉRENCE INTERNATIONALE SUR LES PLANTES PESTICIDES

(Conférence Hybride)

Livre des résumés

THEME

Promouvoir les plantes pesticides pour
une agriculture durable et un environnement sain

 25, 26, 27, 28 et 29 juillet 2022

 Yamoussoukro (Fondation Félix Houphouët-Boigny pour la recherche de la paix)



3563 | RESPONSE OF *TOMATO LEAFMINER*, *TUTA ABSOLUTA* (LEPIDOPTERA: GELECHIIDAE) TO THE SEED OIL OF *CARAPA PROCERA* (MELIACEAE).

KONAN KOUASSI ARTHUR JOCELIN, MARTIN THIBAUD, N'CHO ANTHELME JOCELIN, KOUADIO MARIE-FRANCE N'DA, GADJI ANDRÉ, COULIBALY NOUPÉ DIAKARIA AND OUALI-N'GORAN S-W MAURICETTE

KONAN KOUASSI ARTHUR JOCELIN

arthurjocelinkouassi@gmail.com/Université Félix Houphouët-Boigny/Cote d'Ivoire

Tuta absoluta has been a serious threat to tomato production worldwide since its introduction in Europe, Africa and Asia. The larvae can cause losses of more than 80% of production. The control of this pest is mainly based on the use of synthetic chemical insecticides. Unfortunately, this practice causes resistance of the pest, destroys the auxiliary fauna and represents a risk for human health. Therefore, it is necessary to look for alternative methods of control against *T. absoluta*. The objective of this study is to evaluate the insecticidal and repellent properties of *C. procera* seed oil on larvae, eggs and adults of *T. absoluta* in laboratory. Larvicidal (by contact and by ingestion), ovicidal and repellent effects were evaluated by testing 5 concentrations (3%, 6%, 9%, 12% and 15%) prepared from a stock solution (50% oil, 30% 96°C alcohol and 20% arabic gum solution). All concentrations had larvicidal effect regardless of the mode of application with dose-response effect and higher mortality rate by ingestion compared to contact application. The ovicidal effect varied according to the concentrations tested with a higher mortality rate obtained at 15% concentration. For adults, the extract was found to be highly repellent with a repellency rate of more than 80% at highest concentration (15%). This study revealed the insecticidal and insect repellent potential of this extract towards *T. absoluta* and could constitute an interesting approach in the search for alternative control methods against this serious pest.

biopesticide, larvicidal, ovicidal, repellent effet, biological control

poster