



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_37002
Title of the Manuscript:	Influence of plants extracts and the mycoinsecticide (<i>Metarhizium anisopliae</i>) on cowpea leaves damages and population dynamic/density of flower thrips in the field.
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments		
Minor REVISION comments	Title: ~~Influence Pesticidal activity of plants extracts and the mycoinsecticide (<i>Metarhizium anisopliae</i>) on cowpea leaves damages and population dynamic/density of flower thrips population and damage of cowpea in the field~~ Abstract: Line 24: ----- from synthetic insecticide residues ~~that has been attributes to chemical insecticides.~~ Key words: Line 26: ~~density, leaves damages.~~ Introduction Line 29: ---- is an important element of for development Line 29-31: in the world. ~~in the need of improving their crop yields in quantity and quality, while minimizing the hasardous effects on the environment.~~ The cancelled words do not relate to the previous in the same sentence, you may rephrase or omit them Line 31-32: Hence, the cultivation of crops with diversified incomes, such as cowpea, ~~should be valued. How is this related to the previous statement?~~ Line38-39: This commodity??? would be a major nutritional supplement,----. ~~Why a major? Any reference?~~ Line 42-43:----- and especially insect pests that are responsible for much of yield damages and losses Line 52: ----- ~~increase~~ increased cowpea yields ---- Line 54-55: ----- the use of these chemical pesticides ~~is associated with many harmful effects often caused many more problems than they solved~~ Line 69: was reviewed [30], and has shown Line 70-71: ----- the combination of <i>Boswellia</i> and <i>Azadirachta</i> extracts to the entomopathogenic fungus <i>M. anisopliae</i> has not yet been tested ----- ~~What will be the effect of the pesticidal compounds to the fungus in the combination? Any reference?~~ Line 84: was an early maturity variety (75 days), ----- ~~Do the same in other sections~~ Line 114: 1kg of <i>A. indica</i> leaves in water. Were the leaves dry (powder) or fresh? Be specific Line 118: using the formulation described ~~by who?~~ Line 16-127: average number of holes per leaf were assessed. ~~How did you differentiated the holes due to thrips damage from other insect damages? Did you also consider the effect of other insect pests?~~ Results Line 149: It ~~has contributed to reduce~~ reduced the adult thrips Line 274: which suffered as much from damages as the synthetic insecticide Decis. ~~Not clear!!! Rephrase~~ Line 280-282: The various bioinsecticides protected the cowpea plants with the same efficiency as the synthetic insecticide the Decis, but significantly better than the negative 281 control. Rephrase the statement, it is confusing. Discussion: Line 312: according to whom? neem products Line 331: and ~~even to equal~~ equally effective as Line 355: was not sufficient to equal <i>M. anisopliae</i>----- ~~Not clear~~ Line 361: would have enabled better protection ----- ~~Consider the use of tenses here~~ Line 362-363: might have effectively controlled thrips population in 2015. Are you uncertain with this? What happened? Report what was exactly observed	The title has been rephrased as: Pesticidal activity of plant extracts and a mycoinsecticide (<i>Metarhizium anisopliae</i>) on cowpea flower thrips and leaves damages in the field. Line 24. ...insecticide has been inserted. Line 26: density, leave damages have been removed from the key words Line 29: Agriculture is important for.... Line 31-32. Therefore, productivity should be varied by cultivating crops with diversified incomes such as cowpea. The sentence has been rephrased. Line38-39: This commodity??? would be a major nutritional supplement,----. Cowpea is 2 folds rich in proteins than millet and sorghum (Ndiaye, 1996) which are the main crops in northern Cameroon, where it is one of the most widely cultivated and consumed grain legumes (Gandebe <i>et al.</i>, 2010). Line 42-43. ----and insect pests that are responsible for much of yield damages and losses Line 52: -----increased cowpea yields--- Line 54-55: ----- the use of these chemical pesticides is associated with many harmful effects Line 69: was reviewed [30], and has shown Line 70-71: ----- the combination of <i>Boswellia</i> and <i>Azadirachta</i> extracts to the entomopathogenic fungus <i>M. anisopliae</i> has not yet been tested ----- Neem oil has been reported to increase the efficiency of <i>Metarhizium anisopliae</i> during control of <i>Aedes aegypti</i> (Simone <i>et al.</i>, 2015; Seye <i>et al.</i>, 2012). Seye F, Ndiaye M, Faye O, Afoutou JM. Evaluation of entomopathogenic fungus <i>Metarhizium anisopliae</i> formulated with suneem (neem oil) against <i>Anopheles gambiae</i> s.l. and <i>Culex quinquefasciatus</i> adults. Malaria Chemo. Control Elim. 2012; 1: 1-6. Simone AG, Adriano RP, Anderson R., Catia OPM, Jonathan WABS, Carlos PS, Richard I S. Neem oil increases the efficiency of the entomopathogenic fungus <i>Metarhizium anisopliae</i> for the control of <i>Aedes aegypti</i> (Diptera: Culicidae) larvae. Parasites Vect. 2015; 8: 1-8. Line 84: was an early maturity variety (75 days), -----. Line 114: ----1kg of <i>A. indica</i> fresh leaves in water. Line 118: using the formulation described[31], that requires--- Line 16-127: ---average number of holes per leaf were assessed. Direct damages occur when thrips are seeking for food on plant organs. Hence, saliva injected during the nutrition process can be toxic to plant tissues. It circulates through the cellulosic cell wall and destroys part of the cells surrounding the bite point. These cells are dehydrated, empty of their content then are filled with air, become white and slowly brownish (Bournier, 1983). Leaves damaged by other pests are bore with holes. Bournier A. Les Thrips: Biology and agronomic. importance Ed. INRA, Paris, 1983; 128.



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	Line 363: The presence of metabolites gives the 363 plant materials their insecticidal ability. Which metabolites? Line 370: improvement of the control the cowpea ----- Rephrase! Line 373-374: stabilizing their dynamics in the field. What is the significance of this with regard to pest management? Line 376: commonly used synthetic insecticides hazardous common-used insecticides for a sustainable monitoring management ----- References There is no uniformity in writing the references in the reference list. Check on this. Make sure all references are as per the Journal requirements	Results Line 149: It reduced the adult thrips Line 274: ---for which damages were similar to those occurring after application of the synthetic insecticide Decis. Line 280-282: The various bioinsecticides and the synthetic insecticide Decis equally and significantly protected the cowpea plants better than the negative control. Discussion Line 312: --- that have revealed the less efficiency of neem products in the field [22]. Line 331: ---and equally effective as Line 355: --- On cowpea Bafia variety, although the viscosity of <i>B. dalzielii</i> extract enabled stabilization of thrips population better than <i>A. indica</i> extract, <i>B. dalzielii</i> extract was less efficient than <i>M. anisopliae</i> and Decis. ine 361: ...might have enabled better protection -----. Line 362-363: --- have effectively controlled thrips population in 2015. The sentence has been rephrased Line 363: The presence of metabolites (such as azadirachtin in neem) gives the plant materials their insecticidal ability. The sentence has been rephrased Line 370: was conducted to seek for sustainable ways of improving the ----- The sentence has been rephrased. Line 373-374: ...stabilizing their dynamics in the field. The significance of this with regard to pest management is that when the pest population is not increasing with time (is stabilized) t becomes easy to control the pest. Line 376: commonly used synthetic insecticides for a sustainable management -----
Optional/General comments	The work is good as it contributes to integrated pest management but there is a need to clarify some issues as pointed out above	