



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Journal of Agriculture and Ecology Research International</a>                                     |
| Manuscript Number:       | <b>Ms_JAERI_28483</b>                                                                                         |
| Title of the Manuscript: | <b>Assessment and Importance of Sesame Webworm, Antigastra Catalaunalis in Western Tigray, North Ethiopia</b> |
| Type of the Article      | <b>Original Research Article</b>                                                                              |

**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:

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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)   |
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| <b>Compulsory</b><br>REVISION<br>comments | <p>The article requires major revisions for it to be published and meaningfully contribute to body of scientific knowledge.</p> <p>The introduction lacks real data in quantification of yield losses, sesame production &amp; productivity, and proper justification. Additionally, the objective as stated cannot adequately address to the title of the study. It is just a part of what is expected from the title.</p> <p>Lots of topological errors in introduction which must be corrected, attention must be paid to punctuations and avoid combining words.</p> <p>The study as per the objective seems to add nothing new really unless major revisions are made.</p> <p><b>Methodology:</b> Use of wrong tenses observed, e.g line 52 survey districts include (d), in line 54 household is one word and should follow the same format for stating figures i.e 89974 in line 59 vs e.g 305,065 in line 58.</p> <p>In line 71, no space between a full stop and generally when starting a new sentence, and these are numerous in the whole document. Wrong tenses in line 71 plots was, instead of plots were; combining several words say in line 80, 84, etc.</p> <p><b>Data collection:</b> The formular for incidence and severity needs formatting, and the author should define incidence, severity and prevalence, and differentiate between then. What is presented seems to indicate that incidence and severity are the same which is not the case. Also prevalence is mentioned in the results but not anywhere in the introduction or methodology and how it could be measured.</p> | <p>I make a modification in my objective</p> <p>Incidence is simply size of the pest occurrence in the sampling unit or quadrant while severity is intensity of the damage.</p> |



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|  | <p><b>2.4 Data analysis:</b> There is need to clearly indicate the relevance of the other variables i.e. variety, planting date, stage of growth and altitude in the method of analysis. As stated currently, the method of analysis only captures locations.</p> <p>Analysis therefore should be factorial in approach and / or even consider multiple regression to comprehensively capture the different factors or independent variable.</p> <p><b>3.1:</b> As the results are combined with discussions, where is table or figure for this?, prevalence is not captured in introduction or methodology, how was it measured and analysed, and relate prevalence to incidence and severity by location, time of sowing, altitude, variety and growth stage to make meaning and add value to information already available.</p> <p><b>3.2:</b> Topological errors are many from line 116, 117, 119, 123, 124, 125, 128, 129 etc. It seems the paper was written in hurry without much attention.</p> <p>Then why was incidence higher in cultivated Sesame compared to uncultivated Sesame. A plausible scientific explanation is required because the reason provided is not scientifically sufficient. Also provide a more appropriate explanation on effect of unfavourable weather on the biological aspects of the web worm; its ecology and population cycle. What happens when say you have warm weather conditions and why?.</p> <p>Also critically look at fig. 4. When sown in mid June, the incidence in uncultivated is higher than cultivated, in early July, incidence in cultivated is higher, whereas if sown in late July there is no difference. Critically look at this and provide plausible explanations with points of reference. You are missing out some thing important here.</p> <p><b>3.3:</b> This is not captured in your data analysis method. For the</p> | <p>Prevalence is simply to indicate whether the pest is presented or not in the sampled area. And table 1 shows that the pest was occurred in all the specific locations and Figure 5 explains that in all growth stages of the plant. <math>\text{Prevalence} = \frac{\text{infested area or locations}}{\text{all assessed locations}} \times 100</math></p> <p>uncultivated sesame has grown early in the season compared to the cultivated one. Temperature(lower), and relative humidity(higher) early in the season was not conducive for the pest because webworm requires higher temperature and lower relative humidity for fast reproduction and short life cycle. If warm condition, the duration of egg hatching becomes short and pupa can emerge quickly to adult and large population build up will occur. And the pest prefers to feed on young plants than the old one.</p> <p>Fig.4 as my observation the pest was found to be higher in denser plant population. And uncultivated sesame was grown in a scattered way and pest population early in the season was lower and then larvae were feeding in the first infested plant because plants were not near close like the cultivated one. in the Late season population build-up of the pest was higher b/c the weather condition was conducive for the pest. Adults has laid its egg in all the plants even in the scattered plants and then incidence has become 100% in both cultivated and uncultivated sesame.</p> |
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|  | <p>observation, higher incidence at pod formation and development stage would also be pointing to the feeding character of this pest, and also look at its reproduction and population cycle to answer why it is higher in the capsule formation stage than the vegetative growth stage. The citation of Egonyu and Kyamanywa is irrelevant here, but on capsule damage and efficacy of pesticides vis a vis time of application.</p> <p>Also did you investigate pesticide usage in this study? You should always stick to the scope of what you set out to investigate.</p> <p>The paper does not provide explanation on Figure 5. Why do we consistently have the lowest incidence at Welkait and highest is Kuftha humera?.</p> <p><b>3.4:</b> So many combined words, “incidence is higher in higher temperatures and dry weather conditions”, why is this so?. Does it favour reproduction, reduced food sources, does it coincide with more aggressive developmental stage. You should be scientific; citation of <b>SBN</b> in line 185 should be corrected and put in full. Also add average temperatures and precipitation / rainfall in table 1., for the specific locations for the reader to make quick comparisons and observe whether these affect <i>A. catalaunalis</i> incidence, prevalence and severity.</p> <p>How and why does reduced temperature / increased altitude reduce pest reproduction, and explain the positive and negative correlation between capsule damage vis a vis incidence and altitude respectively as indicated in table 2.</p> <p><b>4.0: Conclusion:</b> Very shallow and needs enrichment. Recast the objective to capture the title, which is not observable in this conclusion. By the conclusion we should be informed of how much loss is caused by Sesame web worm based on incidence, severity and prevalence; how much loss reduction is possible by say early sowing, altitude variation and what varieties are more tolerant.</p> | <p>Kafta humera has higher temperature and lower rainfall, which is favourable for the pest . “incidence is higher in higher temperatures and dry weather conditions” because such condition encourages fast reproduction of the pest and a lot of larva can be found in a single plant.</p> <p>If temperature is reduced, developmental stage of the pest (egg hatching, pupa to adult) can be lengthened.</p> |
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|                                  | <p>Estimated costs in terms of pesticide use basing on the survey of what the farmers are currently using.</p> <p>I agree with the recommendation.</p> <p>Also if possible add on Acknowledgement.</p> <p><b>References:</b> This is very poorly done. Should follow the format and style of the journal. Use a single style. Some of the quickly observable mistakes are as follows:<br/>         Line 225, 228, 253, 279, 283, &amp; 294; the initials of the authors is not well done, separate words in journals,<br/>         Line 237, 241, 247, 251, 261, 265, 286, 288, 291,<br/>         When citing proceedings e.g line 256, 272, 276, 295; you need to mention the editors, dates of conference, where conference held etc.</p> <p>Therefore revisit the whole referencing otherwise as it is it is very poorly done.</p> |  |
| <b>Minor</b> REVISION comments   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| <b>Optional/General</b> comments |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |

As per the guideline of editorial office we have followed VANCOUVER reference style for our paper.  
 Kindly see the following link: <http://sciencedomain.org/archives/20>