



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	2013_AJEA_7269
Title of the Manuscript:	Genetic control against Striga hermonthica infestation: use of host-plant tolerant maize
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	Line 10: should it not be "three-way" , instead of 3-ways? Line 14: insert the word "variety" after maize. Line 27: without developing cultivars resistant to a particular strain of the parasite Line 42: Part of the sentence starting in this line needs to be re-phrased to improve its clarity. Line 58: the word inbred should be replaced by the word variety or genotype. This is because this can be considered a general truth about <i>Striga</i> resistant plants. This observation can also be considered applicable for the next two sentences. It would be ideal to cross reference with observations from other resistance studies to show that these resistance mechanisms have been observed in several genotypes, and even in different cereals. Line 84: It is my opinion that objective 1, just like in the abstract, should be omitted, as it does not seem to be measurable. There were no efforts to promote the variety in the manuscript. Line 91: add the word "for" after breed Line 99: place a comma after the word "season", and delete "were". Line 114: place the word "populations" after "<i>S. Hemonthica</i>" Line 132: insert the word "variety" or "genotype" after maize. Line 147: place a closing bracket after the word "node". Line 152: It is important to indicate the	Line 10: it is "three-way" Line 14: the word "variety" has been inserted after maize. Line 27: without developing cultivars resistant to a particular strain of the parasite Line 42: Part of the sentence starting in this line has been re-phrased to improve its clarity. Line 58 and line 60 of the PDF document: the word inbred has been replaced by the word genotype. Line 84: the objective 1, just like in the abstract, has be omitted. Line 91: the word "for" has been added after breed Line 99: a comma has been placed after the word "season", and the word "were" has been deleted. Line 114: the word "populations" has been placed after "<i>S. hemonthica</i>" Line 132: the word "variety" has been inserted after maize. Line 147: a closing bracket has been placed after the word "node". Line 152: This formula is regularly used to determine the severity index. (Please



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	author(s)/reference from which the formula was quoted from. Lines 184, 206 and many more others: For consistency, it appears better to stick to use of the word variety, and not cultivar. Sometimes these two words are appearing in the same sentence, and will confuse some readers Line 247: insert “for the following traits” after the word “zones”. Line 265: insert the word “variety” or “genotype” after maize.	see Babous <i>et al.</i>, 2008): Bahous M, Ouazzani Touhami A, Douira A. Survie de quelques pathogènes fongiques sur les feuilles de riz conservées au laboratoire. <i>Bulletin de l’Institut Scientifique</i>, Rabat, section Sciences de la Vie. 2008; 30 : 13-18. (In French). It is not important to indicate in this article the author(s)/reference from which the formula was quoted from. Lines 184, 206 and many more others: the word variety has been used instead of using the word cultivar Line 247: “for the following traits” have been inserted after the word “zones”. Line 265: the word “variety” has been inserted after maize.
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Minor REVISION comments	Line 6. Should the abbreviation STR not come before the word maize? Lines 127-128: There might be need to check the correctness of the type of fertiliser used for second application, that is, top dressing. Normally, a compound fertiliser is used at planting, followed by application of a nitrogen based straight fertiliser. If the second application was done by placing it in hole dug beside each plant, then this has to be stated. Applying a compound above ground results in wastage because P is immobile, and will not be utilised by the plant. Line 147: Is it syndrome or symptom rating? The next few statements also use the word syndrome. Lines 211-213. How were the reductions in yield and height determined for each variety? There was no mention of uninfested controls against which such reductions could have been determined. This also applies to other traits in that section of the manuscript. Lines 281-283: Wouldn't absence of interaction suggest that there was no specificity of <i>Striga</i> populations to different maize genotypes, or is that implied in the statement? Lines 286-287: It might not be necessary to include the specific yields. What is important is just to highlight that tolerant varieties had the highest yields. Yields are subject to genotype x environment interaction, such that the actual yields may not be very informative. Percentage yield increases of tolerant versus susceptible types might be more meaningful. Line 290: could be modified as follows: "farmers' maize variety, which was the susceptible check". Line 310: The hypothesis that was confirmed is not clear. The sentence needs rephrasing to improve clarity. Lines 318-324: Could there be an explanation for the contrasting results with respect to physiological	Line 6. the abbreviation STR has been placed before the word maize. Lines 127-128: The type of fertiliser used and the way it has been carried out were correct (Berner <i>et al.</i>, 1997: <i>Striga</i> research methods; and Badu-Apraku & Akinwale, 2011) Line 147: Yes it is syndrome ratings. Lines 211-213. For calculating the average percent grain yield reduction for each variety due to the 6- <i>Striga</i> populations, for example, we process as follows [(Maximum yield due to – Minimum yield)/Grand mean] x 100 Lines 281-283: It is implied in the statement. Lines 286-287: The specific yields have been deleted. Line 290: The words maize variety, which was have been inserted. Line 310: The sentence has been rephrased. Lines 318-324: Could there be an explanation for the contrasting results with respect to physiological specialisation of the parasite? Sure
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	specialisation of the parasite?	
<u>Optional/General</u> comments	Line 366: Caution needs to be taken in assuming that Farmers' varieties may always be susceptible to <i>Striga</i>, as might be suggested by the statement. Some of them may be very tolerant, especially if they would have co-evolved with the parasite in the infested areas. There would have been opportunities for natural selection for tolerant/resistant types over-time. This manuscript is strongly recommended to be submitted for English editing. Tables should not transcend across pages.	Line 366 corresponds to references. However, it is a good point.