

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	Ms_AJEA_29333
Title of the Manuscript:	Screening of maize (Zea mays L.) genotypes for adaptation on contrasted acid soils in the humid forest zone of Cameroon
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>)

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)
<u>Compulsory</u> REVISION comments	Abstract, line 14: variety to both agro-ecologies. Abstract, line 15: analysis showed three groups.... Abstract, line 16: The best genotypes at Nkolbisson were: ATP-14 (4.08 t/ha), ... Abstract, line 17: at Nkoemvone were:... Line 22: of FCFA 2 358.65 billion (INS, 2016). It would be nice to use USD (\$) for financial values, as that currency is known worldwide (this ease the understanding and appreciations of readers), please to that in the entire manuscript Line 23: do you mean "30-40% of the arable land is acidic"? if so it is not clear as you	Line 42: organic acid exudates like citrate are in response to Al and Mn toxicity and have been demonstrated to appear at the level of the apical meristem where primary symptoms have been identified on tolerant genotypes by Keltjens (1988). In addition Horst et al (2007) thinks that, the production of organic acid is a major mechanism for Al tolerance genotypes. Line 23: thanks for your remark, the sentence was wrongly phrase Line 150-151: Sorry, it's an error when histogram were construct, histogram had been improved now

stated, please rephrase

Line 28: complete **absence** not “absent”

Line 29: the plaque of **constraints** faced by

Line 32-33: (The et al., 2006; Mapienfou et al., 2011, Ngonkeu et al., 2009) be consistent with citations, either form latest to earliest or earliers to latest. Please confirm with referencing style in the journal’s instructions to authors.

Line 37: nutrients

Line 41: In addition, **research** carried out by Keltjens

Line 42: the portion of sentence “revealed that, resistant genotypes to AI have citrate level in the roots than the sensitive genotypes.” does not make any sense. Please, rephrase

Line 43: “Problems resolution linked to acidity of the soil is carried out by the application” doesn’t make sense

Line 51: manures had helped to obtain

Line 56: **identify maize genotypes**

Identification of maize genotypes

Line 57: tolerant to (not “for”)

Line 58: ~~tolerant and susceptible~~ genotypes

Tolerant and susceptible genotype

The introduction needs to be improved, the study can be well justified by providing a brief review on which breeding effort has been so far geared towards that concern, what were the key success obtained? Could it be any challenge to that approach?.....

Line 61: Simple subtitle like “**Study area**” would be better

Line 70: what is ECEC? Please define for the first use

Line 79: please indicate under table I, the

Line 98-99 We are show you experimental design

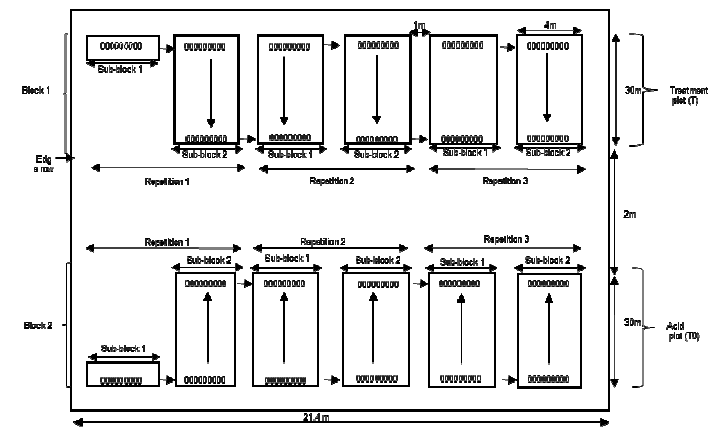


Fig. Experimental design of study sites

→ Sowing orientation 0: Hill

	meaning of the accronyms in the table, for example what do you by TS (%)? It may not be so obvious for everyone, especially non-experts Line 81: Simple subtitle like “Gerplasm or planting material” would be more adequate. Line 82: would you begin the sentence by “Gemplasm used in this study consisted of 52 maize inbred lines genotypes from IRAD.....?” Lines 98-99: please rephrase to give it a clear meaning The experimental design is not clear enough, tell how many blocks, replicates, what are the main blocks, sub blocks (I assume in a split plot you have mains and sub blocks), tell us clearly how the experiment was laid. Line 111: please remove “a bag of” both times it appears Line 112: define DAS for the first use. And remove “a dose of” Line 113: agronomic practices Line 114: I suggest “Data collection” instead “... collected” Line 118: what could this “evaluated 2 WAS” be? Lines 138-143: put i and j in subscript (for example $\alpha\beta_{ij}$) Line 142: “varied” instead of “vary”. Lines 150-151: how could you get a group [5-6[while the highest was 4.11t/ha? One would expect the figure 2 to show 0 (no histogram) at that point. Please clarify Line 159: Parent grain yield on corrected acid soil ; also “varied” instead of “vary”. Line 163: “revealed themselves” find another word to replace the previous. Lines 164-165: the sentence is not correct	Line 365-336 We are trying to explain why we obtained low yield in some varieties as mainly due to floral abnormalities. This phenomenon of floral abnormalities, observed within varieties for which the male and female inflorescence are found on the same stalk gave us reason to think that acid soils have a considerable impact on the entire maize plant particular those regions. And this floral abnormality described by Corley in 1986 and which the author named ‘mantled’ have been described in the regenerated of oil palm plants (<i>Elaeis guineensis</i> Jacq.) which is a monoecious plant like maize (Beulé 2006). That is why the oil plant was highlighted here! Line 401-406 Indeed, we have not tested varieties adapted to climate change during the test, but we had found that ATP genotypes showed tolerant on acid soil at Nkolbisson (Table I) and developing on the flooded land, have been revealed susceptible. Results obtained at Nkoemvone through these genotypes are different than Nkolbisson. Moreover these ATP genotypes were used for their tolerance to acidity by previous authors [7, 10, 11, 13, 24] on the same site without flooding and these genotypes were revealed tolerant. So the floods we have today on this site are due to climate change and we deduced that the floods have increased acidity degree of soil by contribution of ions H + also would have altered the genetic regeneration of these lines.
--	--	--

	Line 168: these were not are. Please check this in the whole result section, results are reported in the past tense. Line 176: varied, please check in the result section. Line 178: change the word procured in the sentence "genotypes procured a yield greater". Line 196: were not are, the same on line 201. Line 232: distance between was not is Line 341: change the expression 'revealed themselves' to another word Line: 345: this result agrees.... Please look for another word to replace agrees Lines 345-346: you need highlight major findings from previous studies from major references and show how similar are these findings to your results. (you don't just list references in brackets). Lines 355-356: change the expression "confirmed itself", also change the word concurred in line 356, revealed themselves on line 358. Line 359-360: The et al., 2012; Tri et al., 2014) be clear on what these authors have reported which is in agreement or contradict your findings. Line 365-366: it is not clear what you are trying to say. What does palm trees come to do in maize? Line 368: This goes hand in hand..... make simpler statements Lines 376-379: It looks like you are reporting what you have not measure, I did not any data on stem borers and hérissons, besides this last word is a French word while the paper here is in english Line 382: change this "manifested themselves" and this "retained by virtue of" Line 383: contrasting soils not contrasted Line 390: this observation not this affirmation	Line 431: The patient consent is for medical field so it should be removed completely..... Sorry for including it in our article
--	---	---

	Lines 398-399: sentence is not clear Lines 401-406: you have not tested to know what is exactly the cause of this change in variety tolerance, you are trying to explain so you don't affirm, you may speculate that changes observed in the climate, for instance, floods (though I wonder how floods would lead to varieties shifting from acid tolerant to susceptible? The opposite would make more sense, as flood come to wash the soils, hence are likely to reduce on acidity.....). you need to be more convincing on that. From lines 416: conclusion need to be improved Lines 431: give there your patient consent, instead of copying and paste what is in the guidelines. Formatting of references need to be revised for example lines 435, 437, 442, 448,.....	
Minor REVISION comments	Abstract, line 1: ...limiting factor for maize productivity.... Abstract, line 9-10: ...5.76 % of the genotypes proved to... Abstract, line 12: ... 5.66 % of the genotypes presented... Line 53: Please rephrase this "the livestock wastes, more precisely the droppings of hens" Line 53: ~~brings to the plant Ca^{2+} and Mg^{2+} and P, nutrients~~ Provide the plant with Ca^{2+}, Mg^{2+}, and P nutrients	
Optional/General comments	The manuscript is scientifically sound, however, the writing style is still very poor. It is recommended that authors request for proofreading from English natives	