



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	Ms_AJEA_23267
Title of the Manuscript:	Gas exchange traits and biplot analysis method can be used as screening criteria for salt tolerance in maize (Zea mays L.) cultivars
Type of the Article	Original Research Articles

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.

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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)
<u>Compulsory</u> REVISION comments	Text should be written as the Journal instructions suggest. The numbering of references, its unification (no hanging indents) and their presenting in the text by the appropriate number is required (see: http://sciencedomain.org/issue/1421)	Revised according to instructions
<u>Minor</u> REVISION comments	Some technicalities, only, should be corrected. ROW 4: ["ABSTRACT" should be in capital letters, for example]. <u>The text should be written according to the Author's Instruction that is clearly given at http://sciencedomain.org/journal/2/authors-instruction.</u> Please, read carefully the guideline in downloaded MS word SDI paper template, and revise all the text accordingly. ROW 10: [EC, SAR, RSC] All the abbreviations that appear in the text should be clarified at the first use. ROW 38: [.....(Kanwal et al., 2011)] "et al." should be cursive (italic). Correct that in all the sentences that follow, please. ROWS 56-59: [The different statistical methods such as relative salt tolerance (Maas, 1986), absolute salt tolerance (Dewey, 1962), GGEbiplot (Yan, 2001; Ali et al., 2012) and susceptibility index (Fischer and Maurer, 1978) have been used to distinguish the salt tolerance response of different crop genotypes.] I must say that I belong to the "old school", and we have been	Revised see line 4 Changes incorporated see line 10 and 11 Revised



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	learnt by previous scientific generation that the sentence breaking with (authors and years) is not a good idea. That makes the sentence less comprehensive, and the author(s) statement less clear. It seems that leaving the literature source(s) at the end of the sentence could be a better idea. In this case something like "The different statistical methods..... response of different crop genotypes (Maas, 1986; Dewey, 1962; Fisher and Maurer, 1978, respectively)." ROW 69: [(FH 421, FH 810,....., EV 6098 and Agati 2002?) Lose this bracket (because you didn't put the end bracket, anyway), and put the colon after "cultivars" and it would be OK. ROWS 71-72: [... Ayub Agricultural Research Institute Faisalabad and from Maize Millet Research Institute, Yousaf wala, Sahiwal.] It would be more informative to write the name of the country at the end of the sentence, because it is not certain that every reader knows that these institutions are in Pakistan. ROWS 80-81: [EC ... SAR ... RSC] It should be given somewhere that EC stands for electrical conductivity, SAR for sodium adsorption ratio and RSC for residual sodium carbonate. ROWS 132, 134 etc.: [...towards salinity treatment vectors (Fig. 3)..... as compared to salt sensitive (Table 2). Similarly the PCA biplot graph of K+ 134 (Fig. 4) showed...] All the illustration labels in the text are to be unified (Fig. 3, Tab. 2, Fig. 4 or Figure 3, Table 2, Figure 4 etc.). Please, follow the instructions to the Authors! http://sciencedomain.org/journal/2/authors-instruction	Revised see line 57 and 58 Revised see line 65, 66 Changes incorporated see line 68 Described in abstract see line 10 and 11 Revised according to instruction
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	ROW 132: [...vectors (Fig. 3).The trend in case....] One space required between the full stop and the first letter of the next sentence. ROW 134: [...graph of K⁺ 134 (Fig. 4) showed 135 visual variation...] The illustration label should be placed at the end of the sentence, in order to avoid the sentence shredding. ROWS 140-149: [Selection of cultivars that have capability to grow with poor quality water will help to increase the crop growth and production. Development of salt tolerant variety is very difficult mechanism due to less genetic germplasm resources, lack of proper selection methods and variations in response to salt tolerance at different growth stages. Plant early stage had been shown more sensitive to salt injury than mature stage and it can provide more efficient screening technique (Lianes <i>et al.</i>, 2005). Water induced salt stress causes a number of adverse biochemical, ionic and physiological changes in plants that resulted in reduction of plant biomass. However, the decline in plant growth and crop yield generally differ among various species and cultivars (Ahmad <i>et al.</i>, 2012; Ali <i>et al.</i>, 2014). Plant biomass production is related to multiple physiological, biochemical and ionic traits.] This text seems to be more appropriate for the Introduction than to Discussion, that ought to consist of comments and explanations concerning own results and their comparison to previously obtained results of some other authors. ROW 206: [...control (fit water) can be due....] "could" instead of "can".	Added space Changes incorporated Not agree with reviewer comments Revised see line 226
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	ROW 211: [...genotypes (Table 2) grown in....] More appropriate place for the illustration label would be at the end of the sentence. [...(saline-sodic water) can be due...] "could" instead of "can" is a little "softer". ROWS 240-351: References are to be unified and readjusted according to the Instruction for the authors http://sciencedomain.org/journal/2/authors-instruction. (For example: some of the references are given with the hanging indent, and most of them not)	Revised see line 226
<u>Optional/General</u> comments	This is a nicely written scientific paper, covering actual topics. I am sharing the author's opinion that a combination of additive (ANOVA) and multiplicative (PCA) models, followed by GE biplots could be very informative in this kind of investigations. However, the pity is that a table of ANOVA results is not given, as well as, that rich discussion that could be drawn from data calculation and presentation is pretty reduced. Finally, from "Materials and methods", and the text that follows it stays quite unclear whether AMMI analysis was used (GE sum of squares is additionally analyzed using PCA), or ANOVA and PCA analysis have been combined (splitting total sum of squares using additive and multiplicative models, respectively). That should be clarified, and the ANOVA table inclusion could be of great help.	Not agree, the data presented in tables and biplot graph is sufficient for explanation of the results.