



SDI Review Form 1.6

Journal Name:	Journal of Agriculture and Ecology Research International
Manuscript Number:	2015_JAERI_18360
Title of the Manuscript:	<i>Effects of Ef1 and m-Ef1 Genes on Earliness and Fitness under Fluctuating Field Environments in one of the Northern-limit Regions of Rice Cultivation</i>
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	The manuscript represents a valuable study on the effects of <i>Ef1</i> and <i>mEf1</i> genes on earliness of rice flowering time as well as plant fitness in Sapporo, Japan, one of the northern-limit regions of rice cultivation. The data in the manuscript are adequately presented, using adequate statistical treatment, and clear recommendations are stated as a conclusion. I have only a few minor comments on the manuscript: Abstract, line 25: Use a plural form of the noun "Individuals" instead of "Individual" in the sentence "Individuals with earlier flowering time tended to show higher fitness." Abstract, line 29: Insert a verb "reveal" after the verb "might" in the sentence "Epistasis-by-environment interaction might reveal a significant role in earliness effects...." Introduction, line 23: Reverse the word order in the words "...most northern regions of rice cultivation" Line 29: Insert "an" before the words "additive effect", i.e., "an additive effect" Line 32: Modify the words "as follow" to "as follows" Line 50: Modify the verb form "change" to "changes" in the sentence "...where the temperature largely changes in a cultivation period...." Line 74: Correct the spelling in the word "exon"	As suggested, the mistake was corrected. As suggested, reveal was added. As suggested, the word order was reversed. As suggested "an" was added before additive. As suggested, the mistake was corrected. As suggested, the mistake was corrected. As suggested, the mistake was corrected.



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	Line 75: Insert a reference number directly after the author's name in the sentence "Uwatoko et al. [14]..." Line 91: Correct the grammar of teh sentence as follows: „...that in year 2003 and 2004, there was cool and very warm summer, respectively.“ Line 94: Rephrase the sentence from an active form into a passive form „...rice plants were sprayed with an insecticide when panicles emerged.“ Line 126: I do not understand the meaning of the following sentence: „Second, allelic difference between <i>Ef1^a</i> and <i>Ef1^b</i> was detected in Taichung while teh difference was not detected in Sapporo.“ - I think that allelic difference is a genetic feature which is independent on the environment - the sentence should probably be focused on the phenotypic effects of the allelic difference which is dependent on teh environment- the sentence has to be rephrased. Line 136: Correct the spelling in the words „epistatic	As suggested, I Insert a reference number directly after the author's name in the sentence "Uwatoko et al. [14]. The other same mistakes were also corrected. As suggested, the grammar of the sentence was corrected. As suggested, I carried out rephrasing the sentence from an active form into a passive form. Allelic diffeence is not independent of environment. The fact that the allelic difference in a low latitude disappeared in a high latitude indicates that each of <i>Ef1</i> allele showed genotype-by-environment interaction since these genetic materials are NILs of <i>Ef1</i>. Such case is not novel phenomenon especially in regulatory genes [1]. For instance, <i>photosensitivity 1</i> (<i>Se1</i>) alleles showed different flowering times in a range of photoperiodic conditions but under a photoperiodic condition, the two alleles showed no difference in flowering time [see reference 19]. This phenomenon is common when one is familiar with reaction norm concept. As suggested, all the epistatic interactions were altered into epistasis.
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	interactions“ Line 181: Correct the word order in teh words „...teh most-northern areas“ Conclusion, line 287: Use a singular form of teh verb „affects“ in the sentence „...that earliness effect as phenotype (as a phenotypic trait) affects fitness....“	As suggested, the mistake was corrected. As suggested the verb mistake was corrected.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		