



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Asian Journal of Biochemistry, Genetics and Molecular Biology</a>                                                                           |
| Manuscript Number:       | <b>Ms_AJBGMB_41210</b>                                                                                                                                  |
| Title of the Manuscript: | <b>Variability, heritability, genetic advance and interrelationships for agronomic and yield traits of sorghum B-lines under different environments</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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

**PART 1: Review Comments**

|                                     | <b>Reviewer's comment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Author's comment</b> (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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <p>Nothing major. Be good to define PCV and GCV at first mention</p> <p>Also need to explain how Genetic Advance could be estimated in this case; in my understanding that refers to gains made by selection and that would require crosses to be made over at least one generation. There are genetic differences between the lines; do the data somehow tell which combinations could be used to advance selection for the most desired trait?</p> <p><b>I am not clear on why/how testing 25 different highly inbred lines would be of value in genetic advance unless crosses are to be made and this would require re-creating new A-lines as well as the b lines if hybrids are superior.</b></p> | <p>-Done</p> <p>-Genetic advance from selection calculated in this study using heritability in the <b>broad sense</b> based on total genetic variance estimated from ANOVA table (from expected mean squares of genotypes). Crosses of different mating designs (such as diallel, line x tester,....etc) are used to estimate heritability in the <b>narrow sense</b> based on additive genetic variance.</p> <p>-The phenotypic variability among B-lines was assessed and was partitioned into genetic, environmental and G x E variances. If the high heritability was associated with high genetic advance for a given trait, it means that most of the genetic variance controlling such trait is of additive type.</p> |
| <b>Minor</b> REVISION comments      | -- minor editing recommended as shown on returned copy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Okay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Optional/General</b> comments    | I'm not sure if I can appreciate what is being done here. Since sorghum B lines are essentially pure breeding inbreds, any genetic variation measured must reflect differences among the genotypes included in the study. Thus future selection will only reflect which line does best in a particular environment. It might suggest that certain crosses could lead to selectable traits, but that is not mentioned.                                                                                                                                                                                                                                                                                   | I am an old plant breeder, please trust in me. We assess the genetic variability among inbreds to identify the best one(s). To suggest appropriate parents for crosses you should use a diallel design or other designs, which was not in our objectives.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |