

Reviewer Report

Title: "Genome-wide sequencing of longan (*Dimocarpus longan* Lour.) provides insights into molecular basis of its polyphenol-rich characteristics"

Version: Original Submission **Date:** 11/1/2016

Reviewer name: John Hamilton

Reviewer Comments to Author:

The manuscript describes the sequencing, assembly, and annotation of the genome of the longan fruit, the genome resequencing of 13 cultivated longan accessions, and the sequencing of 9 RNA-seq libraries of various tissues.

Along with the generation of these data sets, the results of a number of analyses are presented including identification of gene family expansion/contraction, looking for evidence of recent WGD, an analysis of genetic diversity by resequencing longan cultivars, and analyses of the NBS-LRR genes and polyphenol biosynthesis pathways using RNA-Seq.

Overall, the generation of the above data sets and analyses will prove useful to the community.

However, the manuscript was submitted as a GigaScience 'Data Note' rather than a 'Research Article'. If the authors intended to submit the paper just as a Data Note, the paper needs to be revised to remove the extensive analyses and provide more information about the methods and validation used for the sequencing, assembly and annotation of the longan genome. Also missing is the data information file that provides the metadata for the GigaDB submission that would accompany the published Data Note (<https://gigascience.biomedcentral.com/submission-guidelines/preparing-your-manuscript/data-note>).

If resubmitted as a research article or a research article submitted along with a data note submission, it should be noted that the manuscript has numerous typos and a few sections that need to be rewritten for clarity. The authors should take the opportunity to fix these before submitting the manuscript.

Level of Interest

Please indicate how interesting you found the manuscript: An article whose findings are important to those with closely related research interests

Quality of Written English

Please indicate the quality of language in the manuscript: Needs some language corrections before being published

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