Review of: "The brassinosteroid biosynthesis gene TaD11-2A controls grain size and its elite haplotype improves wheat grain yields"

Wricha Tyagi

Potential competing interests: The author(s) declared that no potential competing interests exist.

At the outset I would like to mention that the study entitled “The brassinosteroid biosynthesis gene TaD11-2A controls grain size and its elite haplotype improves wheat grain yields” by Xu et al., is well planned and executed systematically. The rice ortholog *TaD11* has been isolated and functionally characterized. A superior haplotype TaD11-2A has been identified and marker linked with this haplotype shown to be associated with higher grain yield. Role in controlling root traits is also discussed.
However, two-three points need clarification/modification:

In results/discussion section

1. Lines 292-294- it is mentioned that decrease in grain weight in OE lines and still abnormal phenotype of*cpb1* mutant is restored?
2. Lines 326 and 330- contradict each other (decrease in TW and no significant difference in TW).
3. Heading- haplotype identification and molecular marker development of TaD11 needs to be modified.
4. Line 410- title-Natural variations of OsD11 affect panicle length and grain weight in rice needs editing
5. Line 474- overexpression…phenotype….suggesting TaD11-2A complements….
6. Lines 490-491- ZmRAVL1 enhanced high density yield in maize? This needs clarification.
7. Lines 512-514- Shoots and roots may have different physiological BR concentration
8. Line 516- Decreased drought resistance- a suitable example may be cited to support this. Is this cross-talk?
9. Was complementation for TaD11-2B and TaD11-2D with OsD11 attempted?
10. Superior haplotypes across the three homologs 2A, 2B and 2D have been identified. What was the frequency of combined haplotype?
11. Line 407-‘subjected’ to positive selection by various wheat breeding programs globally. Has it been ensured that the accessions evaluated have distinct and diverse parentage and pedigree?
12. Lines 274, 321, 326- verb needs to be corrected.

In materials and method section too, what does the term ‘these reagents’ mean?
Replace treatment instead of treatments; 2g shoot tissue and not tissues.

Overall, authors are requested to correct the verb/plural usage in the entire text including figure legends (please check

supplemental file legends as well) as such errors are common.

I recommend acceptance of this manuscript after minor revision.