

Reviewer's comment:

Please find below some clarification points for this manuscript.

- 1- The title of this manuscript: Effect of nitrogen fertilizer rates on Panicle length and Yield component of some improved rice varieties (*Oryza sativa* L.). Panicle length is one of yield components, why we make separate?
- 2- The response from the author to my comment is not sufficient.
- 3- Yield component includes many traits (tiller/m², panicle m², panicle weight, panicle length, spikelet panicle⁻¹, 1000 grain weight.....) the author doesn't indicate which parameters he uses?
- 4- Author should indicate the recommended fertilizer level in Kenya. Also Fig 4: Under 0N (zero application) N-4 showed the same grain yield of M-3 and higher than M-4. Under 40 N applications, N-4 showed the same value of M-4. If we consider also 80 N is low fertilizer all Nerica varieties showed grain yield higher than MWUR. So what he says in the conclusion is not correct.
- 5- This study should at least repeat one year more to confirm the results.
- 6- Author should calculate the interaction between N and rice varieties to give good recommendation.

Author's feedback:

1. The title has been rephrased to read Influence of nitrogen supply on photosynthesis, chlorophyll content and yield of improved rice varieties under upland conditions in western Kenya
2. The varieties were bred and tested in the same region and thus their performance could not be expected to change, even more based on the experience acquired.
3. The yield components used have been referred to in the text
4. Figure 4 indicates NERICA4 had same or slightly less figures, but under 80 and 120N NERICA had slightly higher yields than MWURs. This indicates MWUR do better under low soil N than NERICAs generally, thus adapted to low input environments.
5. The varieties were bred and tested in the same region and thus their performance could not be expected to change, even more based on the experience acquired. Furthermore the presented results are average of two seasons.