

We would like to thank all three referees as well as the editor for taking the time to read our manuscript again and for their valuable suggestions.

We have carefully considered the reviewers' comments and have implemented all technical corrections requested by Reviewer 3. These include:

- Adding the estimate in Mha next to 44% GWS (line 19).
- Deleting the definition of LPJmL (line 76).
- Providing units to the variables in Sections 2.3 and 2.4 (line 152, 156, as well as 190:202).
- Adding yield decline ranges to Table 2.
- Providing green and blue water consumption estimates for major CFTs (line 448:452).

We however decided not to include another table in the Supplementary Material, but to address the comments concerning CFT-specific green and blue water consumption directly in the discussion by comparing major CFTs with the literature.

Regarding the comment of Reviewer 2 on the introduction of the variable IALL_threshold and the suggestion to rename it to ILIM_threshold (lines 180–183), we believe this is based on a misunderstanding. Reviewer 2 appears to have interpreted IALL_threshold as corresponding to the ILIM (limited irrigation) scenario. However, IALL refers to a distinct scenario in which all crops are irrigated.

For this reason, we have retained the original variable name and have not implemented the suggested change.