

Reply to the interactive comment on “Global cotton production under climate change – Implications for yield and water consumption” by Kokou Adambounou Amouzou (Referee #2)

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The authors adapted the LPJmL model to simulate global future cotton yield and water consumption. Overall, the manuscript is nicely prepared and well-written. The study is of high interest and very informative, providing substantial contribution for improved understanding of cotton response under projected climate change and elevated CO₂ in rain-fed and irrigated production systems. The authors used appropriate methods and reported well illustrated results supported by discussion and conclusions. Furthermore, the authors recognize the limitations of their study, clearly stating that the results should be treated with caution due to uncertainty in the model performance and given constraints on data availability for model evaluation. Therefore, I accept the manuscript as is for publication in Hydrology and Earth System Sciences.

10 *Thank you for your time to evaluate our paper and your recommendation to accept it for publication!*