

South Korea – September 5th, 2023

Editors-in-chief
Agronomy

Dear Editor

Attached please find the manuscript entitled “Optimizing Indoor Hemp Cultivation Efficiency through Differential Day-Night Temperature Treatment” by Gwonjeong Bok, Seungyong Hahm, Juhyung Shin, and Jongseok Park, which we would like to publish it in Agronomy as a research article.

We would like to say our thanks to you and reviewers for careful and thorough reading of this manuscript and for the thoughtful comments and constructive suggestions, which help to improve the quality of this manuscript. We also prepared a response to the reviewer’s comments. The detailed description can be found in the “Authors-reply-letter”.

Thank you very much for your consideration. We look forward to hearing from you.

Sincerely yours,

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Manuscript’s Information

Manuscript ID	Agronomy-2637719
Title	Optimizing Indoor Hemp Cultivation Efficiency through Differential Day-Night Temperature Treatment
Authors	Gwonjeong Bok, Seungyong Hahm, Juhyung Shin, and Jongseok Park,

Note: We agreed with all of the comments and revised them with the **red marked** (to Reviewer 1), **green marked** (to Reviewer 2), and **purple marked** (to Reviewer 3) in the revised manuscript.

Response to Reviewer 3 Comments

Comments 1: In the Abstract, some results should be revised in detail. For example, “Total shoot biomass was highest at 21:27 and lowest at 30:18,” this sentence should add the specific data of the total shoot biomass.

Response 1: We appreciate on your feedback. We have included the specific values for each treatment group in the abstract section as follows.

[At line 18-19 in the revised manuscript.]

“Total shoot biomass based on dry weight was highest at 21:27, reaching 41.76 g, and lowest at 30:18, measuring 24.46 g. However, flower biomass, which is the primary production site, was highest at 24:24 and lowest at 18:30, showing a 4.7-fold difference.”

Comments 2: The conclusion “The findings of this study indicate that the temperature difference of 6 °C between day and night conditions is optimal for female hemp flower production in limited space.” I think it is not accurate. From the results of this study, I think 27:21 °C (positive DIF) is optimal for female hemp flower production and cannabinoid content.

Response 2: As per your comment, we changed the sentence as below.

[At line 22-24 in the revised manuscript.]

“The findings of this study indicate that the optimal temperature condition for female hemp flower production in a limited space is positive 6 DIF treatment, which corresponds to 27:21 °C.”

Comments 3: In the sentence 27, the Latin name of hemp should be *Cannabis sativa* L., the authors should add the dot behind the letter L.

Response 3: We have revised the text according to your comments.

[At line 28 in the revised manuscript.]

“*Cannabis sativa* L. has been cultivated for thousands of years”