For research article

Response to Reviewer 2 Comments

1. Summary

Thank you very much for taking the time to review this manuscript. Please find the detailed responses below and the corresponding revisions/corrections highlighted/in track changes in the re-submitted files. *[This is only a recommended summary. Please feel free to adjust it. We do suggest maintaining a neutral tone and thanking the reviewers for their contribution although the comments may be negative or off-target. If you disagree with the reviewer's comments please include any concerns you may have in the letter to the Academic Editor.]*

2. Questions for General Evaluation	**Reviewer's Evaluation**	**Response and Revisions**
Does the introduction provide sufficient background and include all relevant references?	Yes	Thank you for your insightful feedback on the manuscript. We have carefully considered each comment and have made substantial revisions to address all the points raised. We believe these changes have enhanced the quality, clarity, and impact of our research.
Are all the cited references relevant to the research?	Yes	
Is the research design appropriate?	Yes	
Are the methods adequately described?	Can be improved	
Are the results clearly presented?	Must be improved	
Are the conclusions supported by the results?	Can be improved	

3. Point-by-point response to Comments and Suggestions for Authors

Comments 1: *[The article highlights some relevant genes involved in the interaction with the ALV. However, I believe its impact is limited because these responses are extensively studied and similar to other research in this area. Considering these genes and proteins under phytopathological conditions*

would likely be of interest to the reader and enhance the study's significance. For instance, demonstrating that proteins involved in the response serve as crucial molecules for understanding infection conditions, managing them, and determining the appropriate control measures. On the other hand, Im concerned about some results showed in Figures 4 and 5. Results about phytohormones tend to produce confusion, especially in phytohormone graphs, which are the key results from the paper.]

Response 1: Thank you for your insightful feedback on our article. Regarding the genes involved in the interaction with the azalea lace bug (ALB), we acknowledge that some of these responses have been studied in other contexts. However, our study specifically focuses on Rhododendron cultivars and their interaction with ALB, providing unique insights into the defense mechanisms of these plants. We have revised the manuscript to better highlight the significance of these genes and metabolites under insect stress. We now emphasize how these findings contribute to understanding infection conditions, managing the pest, and determining appropriate control measures.

As for the results shown in Figures 4 and 5 concerning phytohormones, we understand that the phytohormone-related data may have caused confusion. We have carefully revised these figures and the corresponding text to ensure clarity and accuracy in presenting the key findings.

Comments 2: *[For example, in the graph of phytohormones such as salicylic acid, no significant differences are seen between the control and treated plants. However, transcriptomic analyses and supplemental results reveal other results with slight differences between their treatments. On the other hand, it would be appropriate to place letters to the results of relative expression for both graphs 4 and 5, concerning the statistical differences.]*

Response 2: Thank you for your insightful comments regarding the analysis of plant hormones in our study. We acknowledge your observation that in the case of certain phytohormones, such as salicylic acid, no significant differences are observed between the control and treated plants. However, the transcriptomic analyses and additional results do reveal slight differences in other aspects between the treatments.

We would like to clarify that the lack of significant differences in hormone levels can be attributed to the fact that changes in gene expression often precede the synthesis and release of plant metabolites. This phenomenon has also been observed in studies on Iris (*Iris pseudacorus*) and alfalfa (*Medicago sativa*) under stress, where gene expression changes were detected earlier than changes in hormone levels[1-2]. This may lead to differences in gene expression even through no significant differences in hormone levels are observed between the control and treated plants. Statistical significance was not reached in regard to the entire dataset. Since the relative expression results in Figures 4 and 5 show no significant differences between the control and treated groups, it would be meaningless to add letters to indicate statistical differences. Instead, we have chosen to emphasize the changes in gene expression

and the related metabolic pathways, as these provide valuable insights into the plant's response to stress.

We have further clarified this point in the text and have ensured that the Discussion highlights the importance of considering both gene expression and metabolic changes when assessing plant stress responses. We hope that these revisions address your concerns and provide a more comprehensive understanding of our findings.

[1] Shao, L.; Xu, T.; Wang, X.; Zhang, R.; Wang, X.; Ren, Z.; Zhang, J.; Xia, Y.; Li, D. Integrative Comparative Assessment of Cold Acclimation in Evergreen and Deciduous Iris Species. Antioxidants, **2022**, 11(5): 977-977. https://doi.org/10.3390/antiox11050977

[2] Xu, H.; Tong, Z.; He, F.; Li, X. Response of Alfalfa (Medicago sativa L.) to Abrupt Chilling as Reflected by Changes in Freezing Tolerance and Soluble Sugars. Agronomy, **2020**, 10(2):255-255.https://doi.org/10.3390/agronomy10020255

4. Response to Comments on the Quality of English Language

Point 1: The English is fine and does not require any improvement.

Response 1: Thank you for your thorough review and for bringing attention to the language quality in our manuscript. We would greatly appreciate any further guidance or specific suggestions you may have to improve the language quality of our work.

Thank you once again for your valuable feedback.

5. Additional clarifications

[Here, mention any other clarifications you would like to provide to the journal editor/reviewer.]