Response to Peer Review

**Major Revisions**

Background

* References have been added to the manuscript.
* Information about the selection of lettuce has been added.
* The seed microbiome was indeed sequenced, contrary to the reviewer’s comment. This was mentioned in the methods. Relevance of the seed microbiome to plant microbiome is expressed now to add clarity.

Methods

* Leaf and root were indeed already specified as the material being extracted under Methods.
* Technology used for sequencing was added to Methods.

Results

* Comparison between plant parts was not necessary to address the main objectives of the study.
* Taxa bar plots comparing E. coli treatments was produced and added to the manuscript.
* Seeds, roots, and leaves samples were all already mentioned under Methods.
* The objective for analyzing cooccurrence has been added under Methods.
* Statistics tables have been moved to Supplementary Figures, except for the smaller tables including statistically significant findings as they are referenced in the Results.

Discussion

* The aim of the study was wrongly worded and has been adjusted to better reflect objectives, which are met by the analyses made.
* The Conclusions and Discussion sections have been altered to better fit their respective formats.
* Abundance of E. coli after sterilization cannot be calculated as freshly sanitized seeds were not sequenced.
* Discussion of the study’s results compared to another study’s results using mizuna mustard has been added to the manuscript.

**Minor Revisions**

* Effect of seed sanitization on microbiome was already compared.
* Discussion of beneficial bacteria is not directly relevant to the aim of this study.
* References have been included.
* Methods and technologies for sequencing have been included.
* There were no changes in richness or evenness between sanitized and unsanitized samples. There were changes between samples of different says-after-planting, but it was not an aim of this study to analyze those differences.
* Figures showing which taxa were differentially abundant within each treatment level were already present.
* Results have been compared to other studies.
* Other sanitization methods are not relevant because they are not used for ISS missions.
* Explanation for the selection of lettuce for the study was present but has been clarified.