

Dear Editors and Reviewers,

Thank you for your further comments and suggestions on our manuscript entitled “Inducing Banana Fusarium Wilt Disease Suppression through Soil Microbiome Reshaping by Pineapple-Banana Rotation Combined with Biofertilizer Application” (Manuscript No: soil-2021-52). We have carefully dealt with the comments point by point. The responses to your comments are listed as follows. The manuscript has certainly benefited from these insightful revision suggestions. We hope that these revisions successfully address your concerns and requirements.

Thank you and best regards,

Sincerely yours,

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Reply on RC1:

In this work, the authors show that combining pineapple-banana rotation and bio-organic fertilizer application significantly reduces Fusarium wilt disease incidence in comparison with an alternative treatment. Bacterial and fungal communities are further investigated using the Miseq Illumine sequencing platform. They find that fungal community composition and Burkholderia-related network functions contribute to the plant resistance in the borne-disease suppression soil. Hence, the authors provide a promising strategy to manage banana Fusarium wilt disease. However, some key points are concerned in the manuscript. The detailed comments are shown as follows:

Major concerns:

1 Please check the English expression in the whole of manuscript. Especially, the expression tense should be noticed. For example, the description in introduction should be used in a simple present tense.

Answer: Thank you very much for your professional comments and suggestions. The language, of the manuscript was carefully revised again, also, the description in introduction have been changed into a present tense.

2 In line 50, race 4 do not need write in italics.

Answer: Thank you very much for your comments. We have corrected it as “*Fusarium oxysporum* f. sp. *cubense* (FOC) race 4”.

3 In line 243, Acidobacteria is repeated. In line 256, a space is added in “treatments.BOF”.

Answer: Thank you very much for your comments. We have corrected it. It is “Acidobacteria and Actinobacteria” in line 243.

4 In line 265, “analyses show that” should be replaced with “analyses showed that”. Similarly, too mistake in manuscript should be noticed.

Answer: Thank you very much for your comments. We have corrected it.

5 In line 286, “treatment was separate from” should be replaced with “treatment was separated from”.

Answer: Thank you very much for your comments. We have corrected it.

6 *Fusarium* need not write in italics.

Answer: Thank you very much for your comments. We have corrected it in “*Fusarium* wilt disease” over all the manuscript.

7 In method, the cultivars of banana and pineapple should be described in manuscript.

Answer: Thank you for your attention. We have added the cultivars of banana and pineapple as “Banana cultivar *Musa acuminata* AAA *Cavendish* cv. Brazil and pineapple cultivar Golden pineapple were used in the Field experiment.”

8 In discussion, the authors need to discuss the results in comparison with the previous studies.

Answer: Thank you very much for your comments. We have improved the discussion part, and have added some content about comparisons with previous studies as following:

“So, in the current study, we explored the the combined use effect of pineapple-banana rotation and bio-organic fertilizer application to provide a promising strategy to manage banana Fusarium wilt disease. And the results were consistent with the previous reports.”

“Many previous studies have shown that the decrease of soil pH is an important factor leading to soil-borne diseases. And microbial diversity has been seen to increase with higher soil pH values. (Liu et al., 2014; Shen et al., 2013). We observed that soil pH increased in rotation and bio-organic fertilizer treatment (**Table S2**), therefore, the high bacterial and fungal diversity observed in our rotation and bio-organic fertilizer system may be due to high soil pH.

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“It is worth noting that fungal communities were more dissimilar between the Pineapple-banana rotation and Maize-banana rotation treatments than bacteria in our previous studies (Wang et al., 2015). Thus, the higher FOC-relevance found in fungal community both in the pineapple and banana season further reinforced the importance of fungal community changes in our case.”

9 The figure resolution should be improved according to the requirement of journal.

Answer: Thank you very much for your comments. We have improved the figure resolution according to the requirement of journal.