

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,

Beibei, Wang

College of Tropical Crops,

Hainan University, Haikou, 570228, Hainan, P.R China

Reply on RC2:

The results in this work show that pineapple-banana rotation significantly reduces Fusarium wilt disease incidence, and that the application of bio-organic fertilizer causes additional suppression. This paper provides a potential sustainable management to inhibit banana Fusarium wilt disease. It has an important meaning in practice. However, the authors need a clearer analysis and precise description of the paper. Some written errors must be noticed. The writing of technical terms must be corrected. Minor revisions are recommended for the manuscript.

I have the following substantive comments:

Line 1, “Fusarium Wilt Disease”. "Fusarium" need not write in italics, unless it delegates the genus or species. Please check all the italics in the text.

Answer: Thank you very much for your comments. We have corrected it and check all the italics in the text.

Line 50-51, “*Fusarium oxysporum* f. sp. cubense race 4 (FOC)”. "race 4" need not write in italics and it should behind "(FOC)".

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

Line 218, “3.1 Disease incidence and relative abundance of *Fusarium*”. Please adding the statistical table of the disease incidence.

Answer: Thank you very much for your comments. We added the statistical table of the disease incidence in Supplementary Material as following:

Table S1 The statistical table of the disease incidence

		Repeat 1	Repeat 2	Repeat 3	Repeat 4	Repeat 5	Repeat 6	Repeat 7	Repeat 8	Repeat 9
BOF	Total plant	75	75	75	75	75	75	75	75	75
	Disease plant	47	53	50	53	49	46	53	50	50
	Disease incidence (%)	62.67	70.67	66.67	70.67	65.33	61.33	70.67	66.67	66.67

PBIO	Total plant	75	75	75	75	75	75	75	75	75
	Disease number	8	12	7	9	11	8	10	9	9
	Disease incidence (%)	10.67	16.00	9.33	12.00	14.67	10.67	13.33	12.00	12.00

POF	Total plant	75	75	75	75	75	75	75	75	75
	Disease number	25	22	27	22	28	25	24	28	24
	Disease incidence (%)	33.33	29.33	36.00	29.33	37.33	33.33	32.00	37.33	32.00

Line 220, “Fig. 1A”. It should be “Fig. 1B”.

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

Line 228-238, “Figure 1. *Fusarium* wilt disease incidence, *Fusarium* relative abundance and Pearson correlations between them. (A and B)”. The figure caption should match with the figure, and it needs improvement.

Answer: Thank you very much for your comments. We have improved it as following:

“Figure 1. *Fusarium* relative abundance (A), *Fusarium* wilt disease incidence (B) and Pearson correlations between *Fusarium* wilt disease incidence and *Fusarium* relative abundance (C). BOF=Banana continuously cropped for two years with common organic fertilizer applied; POF= Banana planted after Pineapple rotation with common organic fertilizer applied in banana season; PBIO=Banana planted after Pineapple rotation treatment with Bio-organic fertilizer applied; Bars above the histogram represent standard errors and different letters indicate significant differences ($p < 0.05$) according to multivariate variance analysis and multiple comparison results.”

Line 243-250, The phyla need not write in italics. Please check it in the whole text include the figs.

Answer: Thank you very much for your comments. We have corrected it in the whole text.

Line 251, “ $p < 0.05$ ”. “p” should write in italics. Please check it in the whole text.

Answer: Thank you very much for your comments. We have corrected it in the whole text.

Line 252-260, “BOF=Banana continuously cropped for two years with common organic fertilizer applied, POF= Banana ...”. Where “applied,” should be “applied;”. The description of treatments in all the figures and tables should be identical. Please check Figure 1.

Answer: Thank you very much for your comments. We have corrected it. And also, we rearrange the description of Figure 1. Please see the answer to **Line 228-238**.

Line 269, Whether the “OF” should be “BOF”?

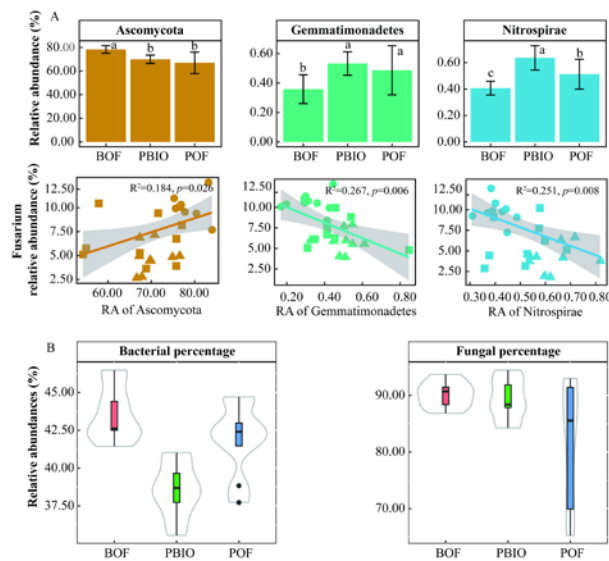
Answer: Thank you very much for your comments. It was our carelessness, yes, it is BOF here, and we have corrected it.

Line 278, “071b” in Table 1 should be “71b”?

Answer: Thank you very much for your comments. It was our carelessness, yes, it is “71b” here, and we have corrected it.

Line 309-315, Where is the A or B in Fig. 4?

Answer: Thank you very much for your comments. It was our carelessness, and we have added A and B in Fig. 4 this time as following:



Line 400-402, “Our previous results indicate that two pineapple-banana rotation treatments significantly reduce Fusarium wilt disease incidence and the relative abundance of Fusarium, compared with banana monoculture”. The difference between BOF and POF is not significant (Fig. 1).

Answer: Thank you very much for your comments. The difference of disease incidence between BOF and POF is significant, while difference of the relative abundance of Fusarium is not significant in Fig. 1. So we rewrote it as “Our previous results indicate that the pineapple-banana rotation treatments significantly reduce Fusarium wilt disease incidence when compared with banana monoculture.”

Line 456, “compared with bacteria, more fungi significantly correlate with FOC abundance”. The abundance is the relative and evaluated only in bacteria or fungi. If consider bacteria and

fungi as a whole, the result of the abundance maybe different. I think authors should express it in other different way instead. Please try to rewrite this part.

Answer: Thank you very much for your comments. We rewrote it as “In the present research, compared with bacteria, a higher percentage of FOC-correlation genus in fungi was observed in all treatments.”