

SOIL Discuss., referee comment RC2
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Comment on soil-2021-52

Anonymous Referee #2

Referee comment on "Inducing banana Fusarium wilt disease suppression through soil microbiome reshaping by pineapple–banana rotation combined with biofertilizer application" by Beibei Wang et al., SOIL Discuss.,
<https://doi.org/10.5194/soil-2021-52-RC2>, 2021

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.

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

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

Line 220, "Fig. 1A". It should be "Fig. 1B".

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.

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

Line 251, " $p < 0.05$ ". " p " should write in italics. Please check 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.

Line 269, Whether the "OF" should be "BOF"?

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

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

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).

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.

Please also note the supplement to this comment:

<https://soil.copernicus.org/preprints/soil-2021-52/soil-2021-52-RC2-supplement.pdf>