

Interactive comment on “Adsorption to soils and biochemical characterization of purified phytases” by Maria Marta Caffaro et al.

Anonymous Referee #1

Received and published: 12 October 2019

Comments for editor The research work carried out under the theme “Adsorption to soils and biochemical characterization of purified phytases” is of scientific significance and has practical application for release of Pi from native or exogenously added organic P. Though, the study conducted is well organized but certain points need due attention. The Accession no of microbial strains used in the study is missing. The cost incurred on purchase of purified phytases and their availability needs mention. A comparative study with crude phytase obtained from wild strains of *A. niger* and *E. coli* could have also been conducted along side. The presentation is not up to the mark and needs modification. Some portions can be deleted and rewritten to make the publication more effective.

Technical Comments for authors 1. Abstract needs some modification indicating the

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% increase in P release with *A. niger* over *E. coli*. 2. L-13-14 Please shift substrates pNP, G3phosphate and phytic acid after substrates 3. L-16 Please write that the order of P release from different substrates by *A. niger* and *E. coli* followed this trend (mention the trend) Introduction 4. L-24 Delete appropriate 5. There are approximately 38 references in introduction. The no. can be reduced. 6. L-45-48. The first phytase was discovered— delete this paragraph. 7. L-74 instead of level write pH and temperature optima

Material and methods 8. L-77 *A. niger* in italics 9. L-79 powder form and not format 10. L-81 Superscript g-1 11. L-87 If one g soil was mixed with 20 ml phytase solution how can you take a sub sample of 500 ml. Please check the unit 12. L-92 150 ml or 150 microliter 13. L-105 total protein (Lowry et al) 14. Phytase activity was measured with 3 substrates 15. L-119 Blanks for measuring enzyme activity included (i) (ii) (iii) 16. L123-126 Please rewrite this portion 17. 17. Please mention the amount of TCA added to stop the reaction 18. L-192 Modify the sentence 19. L-200 pH 7.8 was detrimental for release of Pi from pNP by *A.niger* 20. L-216 Change offered to tested substrates Results and discussion 21. Discussion part is totally missing and needs to be written properly 22. No explanation for findings is given Conclusion needs to be rewritten 23. Tables and Fig titles need to be precise 24. Table 1 Mg+2 and Ca +2 and not Ca+1 25. Provide space between C total, P total and P inorganic 26. Fig.1. spelling for enzymatic

Interactive comment on SOIL Discuss., <https://doi.org/10.5194/soil-2019-50>, 2019.

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