

Comment on soil-2021-103

Anonymous Referee #2

Referee comment on "Environmental behaviors of (*E*) pyriminobac-methyl in agricultural soils" by Wenwen Zhou et al., SOIL Discuss., <https://doi.org/10.5194/soil-2021-103-RC2>, 2022

The manuscript under the title "Environmental behaviors of (E)-Pyriminobac-methyl in agricultural soils" is relevant to the scope of the Journal, scientifically sound and valid. The Authors performed an immense work to study the adsorption-desorption, degradation, and leaching behaviors of EPM in physicochemically various soils, from five exemplar sites in China.

The data presented in the study is comprehensive, very detailed, discussed thoroughly and the conclusions supported by the mathematical models, which makes the paper a great source of data - also as an experimental approach in the pesticide studies.

The only suggestion I would have is to postpone part. 2.2 Extraction and final analyses a bit further in the Materials and Methods part, as the potential reader may be confused by getting the detailed information about the extraction and final assessment of the pesticide before the methodological approach is revealed (description of the soil spiking, adsorption-desorption studies etc.). I believe that would make the work more transparent.

Differences in the sorptive behaviour of the soils are well explained (by various mineralogical composition of soils, especially clay minerals and organic matter contents, CEC value etc.). Results of this study demonstrate the high degradability of EPM, as well as its high adsorption affinity and low mobility in soils with abundant organic matter content and high cation exchange capacity.

The paper may serve as a solid basis for predicting the environmental impacts of EPM and a great reference for the other researchers in this field, as there are still only a few studies on the EPM behaviour in the soil. Therefore, I support its publication.