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PhD: 2018.09-2022.06 Microbiology- Northwest A&F University

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Research Field: Microbial Ecology

Focused Field: Microbial function and environmental adaptability

KEY PUBLICATIONS (First author)

1. **Liu Y**, Wang H, Qian X, Gu J, Chen W, Shen X, Tao S, Jiao S, Wei G. Metagenomics insights into responses of rhizobacteria and their alleviation role in licorice allelopathy. *Microbiome*, 2023. (IF: 15.5; JCR: Q1)
2. **Liu Y**, Wang H, Peng Z, Li D, Chen W, Jiao S, Wei G. Regulation of root secondary metabolites by partial root-associated microbiotas under the shaping of licorice ecotypic differentiation in northwest China. *Journal of Integrative Plant Biology*, 2021. (IF: 11.4; JCR: Q1)
3. **Liu Y**, Liu R, Feng Z, Hu R, Zhao F, Wang J. Regulation of wheat growth by soil multifunctionality and metagenomic-based microbial functional profiles under mulching treatments. *Science of the Total Environment*, 2024. (IF: 9.8; JCR: Q1)
4. **Liu Y**, Li D, Gao H, Li Y, Chen W, Jiao S, Wei G. Regulation of soil micro-foodwebs to root secondary metabolites in cultivated and wild licorice plants. *Science of the Total Environment*, 2022. (IF: 9.8; JCR: Q1)
5. **Liu Y**, Liu R, Ghimire R, Zhang N, Zhou S, Zhao F, Wang J. Linking soil phosphorus fractions to associated microbial functional profiles under crop rotation on the Loess Plateau of China. *Soil and Tillage Research*, 2023. (IF: 6.5; JCR: Q1)
6. **Liu Y**, Yang C, Fu X, Zhao F, Wang J. Mulching drive changes in soil microbial community assembly processes and networks across aggregate fractions. *European Journal of Soil Biology*, 2024. (IF: 3.7; JCR: Q1)
7. **Liu Y**, Wen M, Hu R, Zhao F, Wang J. Regulation of wheat yield by soil multifunctionality and metagenomic-based microbial degradation potentials under crop rotations. *Journal of Environmental Management*, 2024. (IF: 8.0; JCR: Q1)
8. **Liu Y**, Li D, Qi J, Peng Z, Chen W, Wei G, Jiao S. Stochastic processes shape the biogeographic variations in core bacterial communities between aerial and belowground compartments of common bean. *Environmental Microbiology*, 2021. (IF: 5.1; JCR: Q1)
9. **Liu Y**, Li Y, Luo W, Liu S, Chen W, Chen C, Jiao S, Wei G. Soil potassium is correlated with root secondary metabolites and root-associated core bacteria in licorice of different ages. *Plant and Soil*, 2020. (IF: 4.9; JCR: Q1)
10. **Liu Y**, Zhang L, Lu J, Chen W, Wei G, Lin Y. Topography affects the soil conditions and bacterial communities along a restoration gradient on Loess-Plateau. *Applied Soil Ecology*, 2020. (IF: 4.8; JCR: Q1)
11. **Liu Y**, Chen X, Liu J, Liu T, Cheng J, Wei G, Lin Y. Temporal and spatial succession and dynamics of soil fungal communities in restored grassland on the Loess Plateau in China. *Land Degradation & Development*, 2019. (IF: 4.7; JCR: Q1)
12. **Liu Y**, Kou M, Hu R, Zhao F, Wang J. Relationships between soil health and dynamics of soil potential pathogenic microbiota in functional domains of Xi'an urban greenspaces, China. *Environmental Research*, 2025 (IF: 7.7; JCR: Q1)

GRANTS (Host)

- **National Natural Science Foundation of China (42407403)**: Microbial mechanisms of the supply and utilization of nitrogen from cover crop residues in dryland.
- **China Postdoctoral Science Foundation (2023M732844)**: Mechanisms of influence of core microbial community on nitrogen supply, absorption and utilization in cover crop system on the Loess Plateau.
- **Shaanxi Province Science Foundation for Youth (2024JC-YBQN-0275)**: Effects of core microbial community on nitrogen supply, absorption and utilization in cover crop system.
- **Macao Youth Scholars (AM2024002)**: Functional characteristics and environmental adaptability of soil microbial communities in Mars-simulated environments.