

# Mengxiao Li

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Address: Chengdu City, Sichuan Province, China

## EDUCATION BACKGROUND

**Sichuan Agricultural University**

Sep.2017 – Jun.2020

College of Resources

Master of Agriculture

Soil Science

GPA: 3.5/4.0

*Core courses:* Progress in Agricultural Resources and Environment Science(88/100), Plant Nutrition Diagnosis and Fertilization(87/100), Agriculture Information Processing and Analysis(88/100), Biogeochemistry(83/100), Plant Nutrition and Environmental Ecology(84/100), Land Information topics(90/100)

*Thesis:* Study on mechanism of nitrogen regulation measures on key nitrogen conversion process in calcareous purple soil

**Sichuan Agricultural University**

Sep.2012 – Jun.2016

College of Resources and Environment

Bachelor of Engineering

Land Resource Management

*Core courses:* Soil Science(88/100), Soil Science(Practical Teaching)(88/100), Remote Sensing Foundation and Application(90/100), Geological basis(82/100), Land Use management(87/100), Land planning(90/100)

## PUBLICATIONS

- He X, **Li M**, Zhou M, et al. Gross nitrogen transformations and ammonia oxidizers affected by nitrification inhibitors and/or organic amendments in a calcareous soil: A  $^{15}\text{N}$  tracing study[J]. *Applied Soil Ecology*, 2023, 188: 104926.
- Lan T, **Li M**, He X, et al. Effects of exogenous carbon and nitrification inhibitors on denitrification rate, product stoichiometry and *nirS/nirK*-type denitrifiers in a calcareous soil: evidence from  $^{15}\text{N}$  anaerobic microcosm assays[J]. *Journal of Soils and Sediments*, 2023, 23(3): 1217-1232.
- Lan T, **Li M**, He X, et al. Effects of synthetic nitrification inhibitor (3, 4-dimethylpyrazole phosphate; DMPP) and biological nitrification inhibitor (methyl 3-(4-hydroxyphenyl) propionate; MHPP) on the gross N nitrification rate and ammonia oxidizers in two contrasting soils[J]. *Biology and Fertility of Soils*, 2022, 58(3): 333-344.
- Lan T, **Li M**, Han Y, et al. How annual  $\text{CH}_4$ ,  $\text{N}_2\text{O}$ , and NO emissions from rice-wheat system are affected by nitrogen fertilizer rate and type?[J]. *Applied Soil Ecology*, 2020, 150: 103469.

## RESEARCH EXPERIENCE

**Lan Ting's Research Team in Sichuan Agricultural University**

Dec.2023 – Present

Research Assistant

- Organizing experimental data to assess how combined microplastics and cadmium pollution affect pak choi growth, alongside changes in the physical and chemical properties of the surrounding rhizosphere soil
- Using Python for data analysis, mining, and visualization

- Writing scientific paper.

### **Study on the characteristics of nitrogen transformation in purple soil**

*Jul.2018 – Jan.2020*

### **In Transfer Process and Loss Control Mechanism of Fertilizer Nitrogen project**

**(National key R & D Plan project 2017YFD0200100)**

#### *Key Member*

- Assisted in designing the experimental protocol for indoor cultivation experiments in the project, aiming to investigate the effects of nitrogen regulation measures on the nitrification, denitrification processes, and N<sub>2</sub>O emissions in alkaline soil, while exploring their impact on changes in biodiversity
- Conducted indoor cultivation experiments for the project, performing experiments involving aerobic and anaerobic cultivation of alkaline soil with the use of <sup>15</sup>N isotope tracing technology
- Performed one-way ANOVA analysis on the data by SPSS and visualized the data through Origin

### **Exchange Programme at the Nanjing Normal University on the Isotope Tracer method**

*Dec.2018*

#### *Research Assistant*

- Understood and learned the principles of microdiffusion method
- Completed the collection of <sup>15</sup>NO<sub>3</sub><sup>-</sup> and <sup>15</sup>NH<sub>4</sub><sup>+</sup> through the method
- Finalized all equipment preparations and project planning for the implementation of the microdiffusion method in our laboratory experiment

### **National Natural Science Foundation Program of China**

*Nov.2017 – Jun.2018*

#### *Research Assistant*

- Assisted in the preparation and customization of experimental equipment in the early stages of the experiment
- Aided and participated in cultivation experiments (employing <sup>15</sup>N isotope tracing technology) to compare the effects of synthetic nitrification inhibitors and biological nitrification inhibitors on the nitrification, denitrification processes, and N<sub>2</sub>O emissions in both acidic and alkaline soils.
- Contributed to organizing experimental data.

## **WORKING EXPERIENCE**

### **Wekemo Tech Group Co., Ltd. Shenzhen, China**

*Jul.2020 – Jul.2023*

#### *Pre-sales technical & sales*

- Introduced researchers to relevant knowledge in microbiomics and metabolomics
- Offered advice and guidance on researchers' study proposals while aligning with product services
- Provided guidance and recommendations for researchers' sample collection efforts

## **TECHNICAL SKILLS**

**Language:** English(fluent), Mandarin(native)

**Programming Language:** Python

**Software:** Origin, Microsoft office, SPSS

**Certifications:** CET-6, CET-4

**Hobbies:** Reading, Swimming, Pilates, Painting, Video production