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### Research Interests

- Using green manuring technology to produce clean and healthy productions
- Using green manuring technology to build healthy soils
- Effects and mechanisms of green manuring / cover cropping on nutrient cycling and environment

### Publication

Using milk vetch (*Astragalus sinicus* L.) to promote rice straw decomposition by regulating enzyme activity and bacterial community, *Bioresource Technology*, 2021, DOI: 10.1016/j.biortech.2020.124215

Carbon substrates exert a stronger role than nitrogen availability in structuring diazotroph communities in paddy soils, *Applied Soil Ecology*, 2021, DOI: 10.1016/j.apsoil.2020.103778

Effects of milk vetch (*Astragalus sinicus* L.) as winter green manure on rice yield and rate of fertilizer application in rice paddies in south China(CN), *Journal of Plant Nutrition and Fertilizers*, 2020, DOI: 10.11674/zwyf.20375

Green manuring inhibits nitrification in a typical paddy soil by changing the contributions of ammonia-oxidizing archaea and bacteria, *Applied Soil Ecology*, 2020, DOI: 10.1016/j.apsoil.2020.103698



**Contributions of ammonia oxidising bacteria and archaea to nitrification under long-term application of green manure in alkaline paddy soil**, *Geoderma*, 2020, DOI: 10.1016/j.geoderma.2020.114419

**Rational utilization of leguminous green manure to mitigate methane emissions by influencing methanogenic and methanotrophic communities**, *Geoderma*, 2019, DOI: 10.1016/j.geoderma.2019.114071

**Co-incorporation of green manure and rice straw improves rice production, soil chemical, biochemical and microbiological properties in a typical paddy field in southern China**, *Soil & Tillage Research*, 2019, DOI: 10.1016/j.still.2019.104499

**Non-additive responses of soil C and N to rice straw and hairy vetch (*Vicia villosa* Roth L.) mixtures in a paddy soil**, *Plant and Soil*, 2019, DOI: 10.1007/s11104-018-03926-6

**Diazotroph abundance and community structure are reshaped by straw return and mineral fertilizer in rice-rice-green manure rotation**, *Applied Soil Ecology*, 2019, DOI: 10.1016/j.apsoil.2018.12.015

**Ammonia-oxidizing archaea are more sensitive than ammonia-oxidizing bacteria to long-term application of green manure in red paddy soil**, *Applied Soil Ecology*, 2018, DOI: 10.1016/j.apsoil.2017.09.041