

Shimei Wang

Professor of Soil Microbiology

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Education:

PhD, Nanjing Agricultural University, Plant Nutrition, 2007

MSc, Nanjing Agricultural University, Microbiology, 1993

BSc, Huazhou Agricultural University, Microbiology, 1988

Research interests and expertise:

- Resource utilization of agricultural waste (plant straw and animal manure),
- Biological control of soil borne diseases (cucumber wilt and strawberry root rot),
- Fermentation of biocontrol actinomyces, optimization of actinomyces fermentation conditions, extraction and detection of volatile and non-volatile active substances produced by soil actinomyces and biocontrol mechanisms, etc.

Current projects:

- National Natural Science Foundation of China, Synergic mechanism of volatile and non-volatile organic compounds of *Streptomyces albospinus* CT205 on control of soil borne Fusarium wilt disease (No. 41671256), 2017-2020, host.
- The National Basic Research Program of China (973 Project), Soil microbial flora characteristics and regulation of high-yield and high-efficient crops, Sub-project: Study of soil aggregate structure on soil microflora stability and function (No. 2015CB150504), 2015-2020, host.
- National Key Research and Development Program of China, regulating mechanism and efficient conversion of livestock and poultry waste with microorganisms, sub-project 6: Research on the regulating mechanism of harmlessness and reclamation of nutrient transformation from livestock and poultry waste (No. 2018YFD0500201), 2018-2020, host.

Current teaching:

- Environmental engineering microbiology, spring semester
- The experiments of environmental engineering microbiology, spring semester

Selected publications:

- Ting Shen, Chen Wang, Hua Yang, Zhaoliang Deng, Shimei Wang*, Biao Shen, Qirong Shen. Identification, solid-state fermentation and biocontrol effects of *Streptomyces hygroscopicus* B04 on strawberry root rot. *Applied soil ecology*, 2016,103: 36-42
- Shimei Wang*, Yin Liang, Ting Shen, Hua Yang, Biao Shen. Biological characteristics of *Streptomyces albospinus* CT205 and its biocontrol potential against cucumber *Fusarium* wilt. *Biocontrol Science & Technology*,2016, 26 (7): 951-963
- Xinping Yang, Shimei Wang*, Yujiao Liu, Yuanyuan Zhang, Identification and characterization of *Acidithiobacillus ferrooxidans* YY2 and its application in the biodesulfurization of coal. *Canada J. Microbiology*, 2015, 61(1): 65-71
- Z. Li, Z. Deng, S. Chen, H. Yang, Y. Zheng, L. Dai, F. Zhang, S. Wang*, S Hu. Contrasting physical and biochemical properties of orchard soils suppressive and conducive to *Fusarium* wilt of banana. *Soil Use and Management*. *Soil Use and Management*, 2018, 34, 154-162.

Prizes, awards, honors:

- Excellent teacher award of college of resources and environmental science, Nanjing Agricultural University, 2010
- Industrial demonstration and technology of planting substrates for horticultural crops of non-arable land in northwest China, First prize of Science and Technology Progress Award in Gansu Province, 2018/01/25.