

Biao Shen

Professor of Microbiology

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Education:

- Ph.D., Nanjing Agricultural University; Microbiology, 2001
- M.S., Nanjing Agricultural University; Microbiology, 1985
- B.A., Nanjing Agricultural University; Chemistry, 1982

Research interests and expertise:

I am engaged in the research on the microbiology, including the change of microbial community during the composting of agricultural and livestock waste, biocontrol of some soil borne plant diseases by antagonistic microorganisms and bioorganic fertilizers, effect of different fertilizers on the soil microbial community, the change of microbial community and advantage microbes in organic fertilizers mineralization in soil, the succession and regulation of microbial community during the continuous cropping of tomato.

Current projects:

- Succession and regulation of microbial community structure in continuous tomato cropping rhizosphere soil, Chinese natural science fund program (41571242).
- Biological mechanism of organic fertilizer substitution for chemical fertilizers, National Key Research and Development Program of China (2016YFD0200106).
- Technology integration and Application of reduction of chemical fertilizers and pesticides in grape and watermelon production, National Key Research and Development Program of China (2018YFD0201300)

Current teaching:

- Natural Resource and Environmental Microbiology; 48h, fall
- Soil Microbial Ecology and Application technology of Microorganism : 32h, spring

Selected publications:

- Jun Zhao, Tian Nia, Jing Li, Qiang Lu, Zhiying Fang, Qiwei Huang, Ruifu Zhang, Rong Li, Biao Shen,*, Qirong Shen. Effects of organic-inorganic compound fertilizer with reduced chemical fertilizer application on crop yields, soil biological activity and bacterial community structure in a rice-wheat cropping system. *Applied Soil Ecology*, 2016, 99:1-12
- Tian-Tian Zhou, Chun-Yu Li, Da Chen, Kai Wu, Qi-Rong Shen, Biao Shen*. pHIF-Mutant of *Pseudomonas fluorescens* J2 Improved 2, 4-DAPG Biosynthesis and Biocontrol Efficacy against Tomato Bacterial Wilt. *Biological Control*, 2014, 78:1-8
- Da Chen, Xin liu, , Chunyu Li, Wei Tian, Qirong Shen, Biao Shen*. Isolation of *Bacillus*

amyloliquefaciens S20 and its application in control of eggplant bacterial wilt. *Journal of Environmental Management*, 2014, 137(1) : 120–127

- Wei Tian, Lingzhi Li, Fang Liu, Zhenhua Zhang, Guanghui Yu, Qirong Shen, Biao Shen* Assessment of the maturity and biological parameters of compost produced from dairy manure and rice chaff by excitation–emission matrix fluorescence spectroscopy. *Bioresource Technology*, 2012, 11:330-337
- Da Chen, Chunyu Li, Kai Wu, Guanhua Xun, Saifei Yuan, Qirong Shen, Biao Shen*. A *phcA*_ marker-free mutant of *Ralstonia solanacearum* as potential biocontrol agent of tomato bacterial wilt. *Biological Control*, 2015, 80:96–102