

# 个人简介

## 个人概况

姓名：王敏

单位：南京农业大学，资源与环境科学学院植物营养学系

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## 教育及工作经历

2004/09 - 2008/06，湖南农业大学，资源环境学院农业资源与环境系，学士

2008/09 - 2013/11，南京农业大学，资源与环境科学学院植物营养学系，博士（硕博连读）

2013/12 - 至今，南京农业大学，资源与环境科学学院植物营养学系，讲师

## 研究领域

植物营养与病害

植物-微生物互作

## 主要获奖情况

2015 年获江苏省优秀博士学位论文，论文题目：土传黄瓜枯萎病致病生理机制及其与氮素营养关系研究，指导教师：郭世伟教授

## 主要科研项目

- 1、硝态氮营养抑制黄瓜土传枯萎病发生的机制研究，31401941，国家自然科学基金（青年基金），2015-2017 年，25 万元，项目主持人；
- 2、作物高产高效的土壤微生物区系特征及其调控，（外源和土著有益菌向根表趋化成膜和作用机制研究，2015CB150505），国家重点基础研究发展计划

(973 计划)，2015-2019 年，80 万，研究骨干；

3、不同形态氮素营养对黄瓜枯萎病的影响机制研究，2015M571768，中国博士后科学基金面上资助，2015-2016 年，5 万，项目主持人；

4、不同形态氮素营养下黄瓜根系分泌物对枯萎病的影响机制研究，1402148C，江苏省博士后基金，2015-2016 年，2 万，项目主持人；

5、硝态氮营养抑制黄瓜土传枯萎病发生的机制研究，KJQN201514，中央高校基本业务费，10 万，2015-2017 年，项目主持人；

6、黄瓜枯萎病菌毒素产生过程及其作用机理，KYZ201625，中央高校基本业务费，10 万，2016-2018 年，项目主持人；

7、耕地地力对化肥养分利用的制约与促进机制及其调控，（连作障碍抑制作物对养分吸收利用机理与消减技术，2016YFD0200305），国家重点研发计划，90 万，2016-2020 年，研究骨干。

## 代表性论文

1. **Min Wang**, Limin Gao, Suyue Dong, Yuming Sun, Qirong Shen and Shiwei Guo\*. Role of silicon on plant-pathogen interactions. *Frontiers in Plant Science*, 2017, 8:701. doi: 10.3389/fpls.2017.00701
2. Jinyan Zhou<sup>#</sup>, **Min Wang**<sup>#</sup> (equal contributor), Yuming Sun, Zechen Gu, Ruirui Wang, Asanjan Saydin, Qirong Shen and Shiwei Guo\*. Nitrate increased cucumber tolerance to *Fusarium* wilt by regulating gungal toxin production and distribution. *Toxins*, 2017, 9(3): 100.
3. Xian Dong, **Min Wang**, Ning Ling, Qirong Shen, and Shiwei Guo\*. Effects of iron and boron combinations on the suppression of *Fusarium* wilt in banana. *Scientific Reports*, 2016, 6.
4. **Min Wang**, Yuming Sun, Zechen Gu, Ruirui Wang, Guomei Sun, Chen Zhu, Shiwei Guo and Qirong Shen\*. Nitrate protects cucumber plants against *Fusarium oxysporum* by regulating citrate exudation. *Plant and Cell Physiology*, 2016, 57(9): 2001-2012.

5. Limin Gao, Mei Liu, **Min Wang**, Qirong Shen, Shiwei Guo\*. Enhanced salt tolerance under nitrate nutrition is associated with apoplast Na<sup>+</sup> content in canola (*Brassica napus* L.) and rice (*Oryza sativa* L.). *Plant and Cell Physiology*, 2016, doi: 10.1093/pcp/pcw141.
6. **Min Wang**, Lei Ding, Limin Gao, Yingrui Li, Qirong Shen and Shiwei Guo\*. The interactions of aquaporins and mineral nutrients in higher plants. *International Journal of Molecular Sciences*, 2016, 17(8): 1229.
7. Xian Dong, **Min Wang**, Ning Ling, Qirong Shen, Shiwei Guo\*. Potential role of photosynthesis-related factors in banana metabolism and defense against *Fusarium oxysporum* f. sp. *cubense*. *Environmental and Experimental Botany*, 2016, 129, 4-12.
8. **Min Wang**, Yuming Sun, Guomei Sun, Xiaokang Liu, Luchong Zhai, Qirong Shen and Shiwei Guo\*. Water balance altered in cucumber plants infected with *Fusarium oxysporum* f. sp. *Cucumerinum*. *Scientific Reports*, 2015, 5:7722.
9. Binbin Ren, **Min Wang**, Yupei Chen, Guomei Sun, Yong Li, Qirong Shen, Shiwei Guo\*. Water absorption is affected by the nitrogen supply to rice plants. *Plant and Soil*, 2015, 396(1-2): 397-410.
10. **Min Wang**, Ning Ling, Xian Dong, Xiaokang Liu, Qirong Shen and Shiwei Guo\*. Effect of fusaric acid on the leaf physiology of cucumber seedlings. *European Journal of Plant Pathology*, 2014, 138: 103-112.
11. **Min Wang**, Qirong Shen, Guohua Xu, Shiwei Guo\*. New insight into the strategy for nitrogen metabolism in plant cells. *International Review of Cell and Molecular Biology*, 2014, 310: 1-37.
12. **Min Wang**, Yinfeng Xiong, Ning Ling, Xumeng Feng, Zengtao Zhong, Qirong Shen and Shiwei Guo\*. Detection of the dynamic response of cucumber leaves to fusaric acid using thermal imaging. *Plant Physiology and Biochemistry*, 2013, 66: 68-76.
13. **Min Wang**, Qingsong Zheng, Qirong Shen and Shiwei Guo\*. The critical role of potassium in plant stress response. *International Journal of Molecular Sciences*,

2013, 14(4): 7370-7390.

14. **Min Wang**, Ning Ling, Xian Dong, Yiyong Zhu, Qirong Shen and Shiwei Guo\*. Thermographic visualization of leaf response in cucumber plants infected with the soil-borne pathogen *Fusarium oxysporum* f. sp. *cucumerinum*. *Plant Physiology and Biochemistry*, 2012, 61: 153-161.
15. Xian Dong, Ning Ling, **Min Wang**, Qirong Shen, Shiwei Guo\*. Fusaric acid is a crucial factor in the disturbance of leaf water imbalance in *Fusarium*-infected banana plants. *Plant Physiology and Biochemistry*, 2012, 60: 171-179.