# Min Wang

# **Associate Professor of Plant nutrition**

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#### **Education:**

- Sep. 2004 Jun. 2008 B.S. in Agricultural resources and environment, College of Resources and Environment, Hunan Agricultural University, China
- Sep. 2007 Jun. 2009 M.S. in Plant Nutrient, College of Resources and Environmental Science, Nanjing Agricultural University, China
- Sep. 2009 Jun. 2012 Ph.D. in Plant Nutrient, College of Resources and Environmental Science, Nanjing Agricultural University, China

### Work:

- Dec. 2013 Dec. 2016 Lecture in Plant Nutrition, College of Resources and Environmental Science, Nanjing Agricultural University, China
- Jan. 2017 Associate Professor of Plant nutrition, College of Resources and Environmental Science, Nanjing Agricultural University, China

#### **Research Area:**

- Plant Nutrition and Disease
- Plant-Microbe Interactions

## **Current Research Projects:**

- 1. Studies on the mechanisms of the soil-borne disease of cucumber Fusarium wilt suppressed by nitrate nutrition, National Nature Science Foundation of China (No. 31401941), 2015-2017
- 2. Constructing of microbiome of soils with high fertility and high disease suppressiveness, The National Basic Research Program of China (973 Project) (No. 2015CB150505), 2015-2019
- 3. The mechanism of continuous cropping obstacle restraining nutrient absorption and utilization, and its subtractive technology, National Key R&D Program of China (No. 2016YFD0200305), 2016-2020

# **Selected publications:**

- 1. **Min Wang**, Zechen Gu, Ruirui Wang, Junjie Guo, Ning Ling, Les G Firbank, Shiwei Guo\*. Plant primary metabolism regulated by nitrogen contributes to plant-pathogen interactions. Plant and Cell Physiology, 2018, doi.org/10.1093/pcp/pcy211.
- 2. **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.
- 3. 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.
- 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. **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.
- 6. **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.
- 7. **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.
- 8. **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.
- 9. **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.
- 10. **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.

11. **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.

## Awards:

- Studies on physiological mechanisms of soil-borne disease of cucumber fusarium wilt and the relationships with nitrogen nutrition, Outstanding Doctoral Degree Thesis Award in Jiangsu Province, 2015
- Young Elite Scientist Sponsorship Program by the China Association for Science and Technology, 2018