

## **Wei Chen**

### **Professor of Plant Nutrition Science**

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#### **Education:**

- Ph.D., Nanjing Agricultural University; Plant Nutrition Science, 2005
- M.sc., Nanjing Agricultural University; Soil Science, 1993
- B.A., Nanjing Agricultural University; Soil Agrochemistry, 1987

#### **Research interests and expertise:**

- Wei Chen's group investigates the biological effects of microbe-enriched biofertilizers on saline soil regarding the soil arability and plant growth. The main focus is on Trichoderma-enriched biofertilizer products that prepared from different carbon substrates. The group investigates how Trichoderma colonize in rhizosphere and on the mechanisms that how the biofertilizer improves the plant growth, and how it influences the soil microbiome. A second area of research is the application of biofertilizers with reduced rate of chemical fertilizers. Experiments with Trichoderma-enriched biofertilizers are used together with reduced different amount of chemical fertilizers to study how much and how the biofertilizers can instead the mineral ones.

#### **Current projects:**

- National key R&D project, 2016YFD0800605, High value utilization technology and new product development of agricultural solide wastes, 2016-2020, 3.06M

#### **Selected publications:**

- Cai F, Pang G, Li RX, Li R, Gu XL, Shen QR, Chen W\*. Bioorganic fertilizer maintains a more stable soil microbiome than chemical fertilizer for monocropping. *Biology and Fertility of Soils* 2017, 53:861-872.
- Cai F, Pang G, Miao Y, Li RX, Li R, Shen QR, Chen W\*. The nutrient preference of plants influences their rhizosphere microbiome. *Applied Soil Ecology* 2017,110:146-150.
- Pang G, Cai F, Li RX, Zhao Z, Li R, Gu XL, Shen QR, Chen W\*. Trichoderma-enriched organic fertilizer can mitigate microbiome degeneration of monocropped soil to maintain better plant growth. *Plant and Soil* 2017, 416 :181-192.
- Li RX, Cai F, Pang G, Shen QR, Li R, Chen W\*. Solubilisation of phosphate and micronutrients by *Trichoderma harzianum* and its relationship with the promotion of tomato plant growth. *PLoS One* 2015,10:e0130081.
- Cai F, Yu GH, Wang P, Wei Z, Fu L, Shen QR, Chen W\*. Harzianolide, a novel plant growth regulator and systemic resistance elicitor from *Trichoderma harzianum*. *Plant Physiology and Biochemistry* 2013,73:106-113.

**Prizes, awards, honors:**

- Dabeinong Science and Technology Award, Using straws and animal waste proteins to produce Trichoderma solid inoculant and its full element biofertilizer, 2018
- Second Prize of Jiangsu Higher Education Teaching Achievement Award, 2009