

## Shubin Sun

### Professor of Plant Nutrition

**Address:** No 1 Weigang, Nanjing Agricultural University, Nanjing, China 210095

**Phone Number:** 025-84396238

**Email:** sunshubin@njau.edu.cn

### Education:

- Ph.D., Nanjing Agricultural University; agronomy Sciences, 2003
- B. S., Shandong Qufu Normal University, P. R. China; Biological Sciences, 1983

### Research interests and expertise:

Our main research interests are the understanding the morphophysiological and molecular responses to macronutrients (phosphorus and nitrogen) deficiencies in crops.

### Current projects:

- Functional studies on OsLPR5 affecting root growth in response to phosphate deficiency in rice. (2016-2019; National Natural Science Foundation of China; NSFC).
- Function and characterization for breeding of high efficiency of phosphate and potassium and their *cis*-elements. (2014-2016; National Science and Technology Major Project).
- Cloning and functional verification of key genes for efficient utilization of nutrients and light. (2016-2020; National Program on R&D of Transgenic Plants).

### Selected publications:

- Wenxia Pei, Ajay Jain, Yafei Sun, Zhantian Zhang, Hao Ai, Xiuli Liu, Huadun Wang, Bing Feng<sup>1</sup>, Rui Sun<sup>1</sup>, Hongmin Zhou<sup>1</sup>, Guohua Xu<sup>1</sup> & **Shubin Sun\***. (2017) OsSIZ2 exerts regulatory influences on the developmental responses and phosphate homeostasis in rice, **Scientific Report** DOI:10.1038/s41598-017-10274-5. (\*correspondent author) (IF<sub>(2017)</sub>=4.3)
- Yue Cao, Hao Ai, Ajay Jain, Xueneng Wu, Liang Zhang, Wenxia Pei, Aiqun Chen, Guohua Xu, **Shubin Sun\***. (2016) Identification and expression analysis of OsLPR family revealed the potential roles of *OsLPR3* and *5* in maintaining phosphate homeostasis in rice, **BMC Plant Biology** 16:210, DOI 10.1186/s12870-016-0853-x. (\*correspondent author) (IF<sub>(2015)</sub>=3.63)
- Huadun Wang, Rui Sun, Yue Cao, Wenxia Pei, Yafei Sun, Hongmin Zhou, Xueneng Wu, Fang Zhang, Le Luo, Qirong Shen, Guohua Xu, **Shubin Sun\***. (2015) OsSIZ1, a SUMOE3 ligase gene, is involved in the regulation of the responses to phosphate and nitrogen in rice, **Plant and Cell Physiology**, 56(12):2381-95. (\*correspondent author) (IF<sub>(2014)</sub>=4.93)

- Fang Zhang, Ya-Fei Sun, Wen-Xia Pei, Ajay Jain, Rui Sun, Yue Cao, Xueneng Wu, Tingting Jiang, Liang Zhang, Xiaorong Fan, Aiqun Chen, Qirong Shen, Guohua Xu and **Shubin Sun\***.(2015) Involvement of OsPht1;4 in phosphate acquisition, and mobilization facilitates embryo development in rice. **The Plant Journal**, 82(4): 556-569. (\*correspondent author) (IF<sub>(2014)</sub>=5.97)
- Gu M, Chen AQ, **Sun SB**, Xu GH. (2015) Complex regulation of plant phosphate transporters and the gap between molecular mechanisms and practical application: what are missing? **Molecular Plant**, 9(3):396-416. (IF<sub>(2014)</sub>=6.34)
- Fang Zhang, Xue-Neng Wu, Hong-Min Zhou, Dan-Feng Wang, Ting-Ting Jiang, Ya-Fei Sun, Yue Cao, Wen-Xia Pei, **Shu-Bin Sun\***, Guo-Hua Xu (2014) Overexpression of rice phosphate transporter gene *OsPT6* enhances phosphate uptake and accumulation in transgenic rice plants. **Plant and Soil**, 384: 259-270 (\*correspondent author) (IF<sub>(2013)</sub>=3.24)
- Yue Cao, Yan Yan, Fang Zhang, Hua-dun Wang, MianGu, Xue-neng Wu, **Shu-bin Sun\***, Guo-hua Xu. (2014) Fine characterization of *OsPHO2* knockout mutants reveals its key role in Pi utilization in rice. **Journal of Plant Physiology**, 171 (2): 340-348(\*correspondent author) (IF<sub>(five year)</sub>=3.3)
- Liao D, Chen X, Chen A, Wang H, Liu J, Liu J, Gu M, **Sun S**, Xu G. (2014) The Characterization of Six Auxin-Induced Tomato GH3 Genes Uncovers a Member, SlGH3.4, Strongly Responsive to ArbuscularMycorrhizal Symbiosis. **Plant Cell Physiol.** 56, 674-687.(IF<sub>(2013)</sub>=4.978)
- **Shubin Sun**, MianGu, Yue Cao, Xinpeng Huang, Xiao Zhang, Penghui Ai, Jianning Zhao, Xiaorong Fan, Guohua Xu\*.(2012) A constitutive expressed phosphate transporter, OsPht1;1, modulates phosphate uptake and translocation in Pi-replete rice. **Plant Physiology** 159(4):1571-81. (IF<sub>(2011)</sub>=6.54)
- Shubin Sun, Jingjing Wang, LinglingZhu, Dehua Liao, MianGu, Lixuan Ren, YoramKapulnik, Guohua Xu.(2012)An Active Factor from the Root Exudates of Tomato Plays an Important Role in Efficient Establishment of Mycorrhizal Symbiosis. **Plos One** 7(8):1-7.: e43385 (IF<sub>(2011)</sub>=4.09)