



*contributing to stable grain yield and increased water use efficiency under drought stress; (2) investigate the importance of early vigour and seedling water use for drought conditions; (3) illustrate the change rule of dry matter distribution between shoots and roots under drought stress.*

**Sept. 2008-Sept. 2010, Visiting Ph. D. Student,** Depart. of Plant & Soil & Entomological Sciences, University of Idaho.

*Conducted field research in spring wheat to (1) establish the relationships between agronomic traits, physiological traits, and grain yield (GY) responses to drought; (2) evaluate water use efficiency and nitrogen use efficiency in wheat genotypes and determine the relationships between them and yield under different water conditions; and (3) characterize and prioritize the 30 wheat genotypes for yield, drought resistance, and water-saving characteristics.*

## **PUBLICATIONS**

[Underlined names are graduate students under Li's supervision; (#) indicates these authors equally contributed to this work; (\*) indicates the corresponding author]

### **Journal Articles**

- [1] Z. Chen#, H. Chen, Y. Jiang, J. Wang, A. Khan, **P. Li**#, C. Cao\*. 2020. Metabolomic analysis reveals metabolites and pathways involved in grain quality traits of high-quality rice cultivars under a dry cultivation system. *Food Chemistry*, 326:126845.
- [2] Z. Chen#, X. Yang#, W. Song, A. Khan, U. Najeeb, **P. Li**\*, C. Cao\*. 2020. Water-saving cultivation plus super rice hybrid genotype improves water productivity and yield. *Agronomy Journal*, 112:1764-1777.
- [3] Z. Chen#, W. Xu#, J. Nie, A. Khan, C. Cao, **P. Li**\*. 2020. Drought stress intensity, duration and its resistance impact on rice (*Oryza sativa* L.) seedling. *Applied Ecology and Environmental Research*, 18(1):469-486.
- [4] X. Yang, B. Wang, L. Chen, **P. Li**\* and C. Cao\*. 2019. The different influences of drought stress at the flowering stage on rice physiological traits, grain yield, and quality. *Scientific Reports*. 9: 3742.
- [5] W. Song, R. Liu, S. Jiang, Y. Jiang, C. Cao, and **P. Li**\*. 2019. Responses of photosynthetic characteristics of different leaf positions in water-saving drought-tolerant rice and high-yield rice to soil moisture change. *Journal of Huazhong Agricultural University*. 38(2):45-54.
- [6] H. Bu, W. Song, C. Cao, and **P. Li**\*. 2017. Root growth responses to soil water deficit for a water-saving and drought-resistant rice genotype hanyou113. *Scientia Agricultura Sinica*. 50(22):4277-4289.

- [7] L. Chen, B. Wang, Y. Jiang, C. Cao, and **P. Li\***. 2016. Effects of drought and re-watering on rice physiological and biochemical indexes of leaves and grain yield at booting stage. *China Rice*. 22(1): 59-64.
- [8] X. Yang, B. Wang, L. Chen, C. Cao, and **P. Li\***. 2015. Effects of drought stress on rice physiological traits and grain yield at heading stage. *China Rice*. 21(4): 138-141.
- [9] **P. Li**, J. Chen\*, and P. Wu. 2012. Evaluation of grain yield and three physiological traits in 30 spring wheat genotypes across three irrigation regimes. *Crop Science*, 52:110–121.
- [10] **P. Li**, P. Wu\*, and J. 2012. Chen. Evaluation of flag leaf chlorophyll content index in 30 spring wheat genotypes under three irrigation regimes. *Australian Journal of Crop Science*, 6:1123-1130.
- [11] **P. Li**, J. Chen\*, P. Wu, J. Zhang, C. Chu, D. See, G. Brown-Guedira, R. Zemetra, and E. Souza. 2011. Quantitative trait loci analysis for the effect of Rht-B1 dwarfing gene on coleoptile length and seedling root length and number of bread wheat. *Crop Science*, 51:2561–2568.
- [12] **P. Li**, J. Chen, and P. Wu\*. 2011. Agronomic characteristics and grain yield of 30 spring wheat genotypes under drought stress and nonstress conditions. *Agronomy Journal*, 103:1619–1628.
- [13] **P. Li**, P. Wu\*, and J. Chen. 2011. Water use efficiency and nitrogen use efficiency of 30 spring wheat genotypes under drought stress and well-watered conditions. *International Agricultural Engineering Journal*, 20:8-17.

## **Book chapter**

C. Cao, C. Li, M. Zhan, J. Wang and **P. Li**. 2014. The theory and practice of low carbon rice farming. In: X. Li and C. Hao (eds.). Water-saving irrigation and low carbon rice farming. pp79-139. Science Press, Beijing.

## **RESEARCH PROJECTS**

(The following projects are ongoing ones which are presided over by Ping LI)

- [1] The mechanism study on maintaining high yield under drought stress by regulating assimilate allocation in rice (31801291), National Natural Science Foundation of China, 01/01/2019 – 31/12/2021.
- [2] Technology research of rice water-saving and upland rice planting in North Middle and Lower Reaches of the Yangtze River (2017YFD0301405-05), subproject of State Key Special Program, 01/07/2017 – 31/12/2020.