

Zhenhai Cui

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EDUCATION

- 2007-2013 **Ph.D., Department of Agronomy**
Shenyang Agricultural University, Shenyang, Liaoning, China
- 2002-2005 **M.S., College of Biological Sciences and Technology**
Shenyang Agricultural University, Shenyang, Liaoning, China
- 1994-1998 **B.S., Department of Agronomy**
Shenyang Agricultural University, Shenyang, Liaoning, China

POSITION AND EMPLOYMENT

- 2018-Present **Associated Professor**, College of Biological Science and Biotechnology,
Shenyang Agricultural University, Shenyang, Liaoning, China
- 2018-2019 **Visiting Scholar**, Department of Crop and Soil Sciences, Washington
State University, Pullman, WA, USA
- 2014-2016 **Postdoc**, National Maize Improvement Center of China, China
Agricultural University, Beijing, China
- 2008-2017 **Lecturer**, College of Biological Science and Biotechnology, Shenyang
Agricultural University, Shenyang, Liaoning, China

RESEARCH

Committed to dissect the genetic basis of husk traits in maize to facilitate fast dehydration breeding. The finished analysis of husk included GWAS (BMC genomics, 2016) and QTL mapping (TAG, 2018). One new variety of maize hybrid with fast dehydration rate have been released in 2018 in Liaoning Province, China.

TEACHING EXPERIENCE

- 2005-Present **Plant Physiology for undergraduate student**
Teacher, Shenyang Agricultural University, Shenyang, Liaoning, China
- 2005 -2006 **Plant Secondary metabolites for undergraduate student**
Teacher, Shenyang Agricultural University, Shenyang, Liaoning, China
- 2007-Present **Plant Photosynthetic Physiology for graduate student**
Teacher, Shenyang Agricultural University, Shenyang, Liaoning, China
- 2006-2007 **Plant Developmental Biology for graduate student**
Teacher, Shenyang Agricultural University, Shenyang, Liaoning, China

PUBLICATIONS

1. **Zhenhai Cui**, Jinhong Luo, Chuangye Qi, Yanye Ruan, Jing Li, Ao Zhang, Xiaohong Yang* and Yan He*. Genome-wide association study (GWAS) reveals the genetic architecture of four husk traits in maize. *BMC Genomics*. 2016, 17:946
2. **Zhenhai Cui**, Aiai Xia, Ao Zhang, Jinhong Luo, Xiaohong Yang, Lijun Zhang, Yanye Ruan, Yan He. Linkage mapping combined with association analysis reveals QTL and candidate genes for three husk traits in maize. *Theoretical and Applied Genetics*, 2018
3. **Zhenhai Cui**, Xinglin Ma, Lijun Zhang, Jie Chen, Biying Ling. Effects of drought stress during seedling stage on yield and water use efficiency of maize. *Journal of Maize Sciences*, 2005
4. Liqun Chen#, Jinhong Luo#, **Zhenhai Cui**#, Ming Xue, Li Wang, Xiaoyu Zhang, Wojtek P Pawlowski, Yan He*. ATX3, ATX4, and ATX5 encode putative H3K4 methyltransferases and are critical for plant development. *Plant physiology*, 2017
5. Ao Zhang#, **Zhenhai Cui**#, Jialin Yu, Ziling hu, Rui Ding, Daming Ren, Lijun Zhang. Dissipation of excess excitation energy of the needle leaves in *Pinus* trees during cold winters. *International journal of biometeorology*. 2016, 60: 1953.
6. Ao Zhang#, **Zhenhai Cui**#, Cong Li, Jinhong Luo, Yixin Guan, Lingli Liu, Zhuang Zhang, Lijun Zhang, Yan He, Yanye Ruan, Haiqiu Yu. Identification of maize brace-root quantitative trait loci in a recombinant inbred line population. *Euphytica*, 2018
7. **Zhenhai Cui**, Yue Nian, Ao Zhang, Jian Zang, Yanshu Zhu, Yanye Ruan, Jinjuan Fan, Lijun Zhang. Exogenous Malate Application Inhibits the Photochemical Activity of Photosystem II in Rice Leaves. *International journal of agriculture&biology*. 2015, 1560–8530
8. Ao Zhang, Hongwu Wang, Yoseph Beyene, Kassa Semagn, Yubo Liu, Shiliang Cao, **Zhenhai Cui**, Yanye Ruan, Juan Burgueño, Felix San Vicente, et al. Effect of trait heritability, training population size and marker density on genomic prediction accuracy estimation in 22 bi-parental tropical maize populations. *Frontiers in plant science*, 2017
9. Rui Ding, Lifei Liu, Xuhui Chen, **Zhenhai Cui**, Ao Zhang, Daming Ren, Lijun Zhang. Introduction of two mutations into AroG increases phenylalanine production in *Escherichia coli*. *Biotechnol Lett*. 2014
10. Wanqiu Jia, Lijun Zhang, Di Wu, Shan Liu, Xue Gong, **Zhenhai Cui**, Na Cui, Huiying Cao, Longbing Rao and Che Wang. Sucrose Transporter AtSUC9 Mediated by a Low Sucrose Level is Involved in Arabidopsis Abiotic Stress Resistance by Regulating Sucrose Distribution and ABA Accumulation. *Plant Cell Physiol*. 2015, 56(8): 1574–1587

11. Che Wang, Lijun Zhang, Ming Yuan, Yunxia Ge, Yanji Liu, Jinjun Fan, Yanye Ruan, **Zhenhai Cui**, Shuang Tong, and Shaobin Zhang. The microfilament cytoskeleton plays a vital role in salt and osmotic stress tolerance in Arabidopsis. *Plant Biology*, 2008, 12:70-78
12. **Zhenhai Cui**, Ao Zhang, Ziling Hu, Lijun Zhang, Jinjuan Fan, Yanshu Zhu, Kai Hu, Yanye Ruan, Yixin Guan. Different Effects of Malate on the Activities of Photosystem II in Detached Leaves of Maize and Tobacco. *American Journal of Plant Sciences*, 2015, 6, 1734-1741.
13. **Zhenhai Cui**, Yanpeng Wang, Ao Zhang, Lijun Zhang. Regulation of Reversible Dissociation of LHCII from PSII by Phosphorylation in Plants. *American Journal of Plant Sciences*, 2014, 5: 241-249

FUNDINGS

- **National Natural Science Fund of China**, \$32, 835, Regulation functions of malate in plant C4 photosynthesis pathway development and its mechanism of action, Jan, 2011-Dec, 2013
- **National Natural Science Fund of China**, \$85, 075, Functional characterization of a NAC-like transcription factor in regulation husk layer number in maize, Jan, 2018-Dec, 2021
- **Postdoctoral Science Foundation of China**, \$7, 462, Identification and functional characterization of key genes regulating maize husk leaf morphogenesis, Jan, 2015-Dec, 2016
- **PhD Research Startup Foundation of Liaoning Province**, \$8, 955, Genetic structure analysis of key genes regulating maize husk traits, July, 2015-July, 2017

AWARDS

- The first prize of Competition for Young Teachers of High-Quality Lectures, Shenyang agricultural university, 2013
- Third Class Supervisor Award of Excellent Bachelor of Shenyang agricultural university, 2013
- First Class Supervisor Award of Excellent Bachelor of Shenyang agricultural university, 2011