

Wenwei Xu

Professor of Corn Breeding and Genetics

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Education:

Ph.D. in Genetics, University of Missouri-Columbia, 1992.

M.S. in Crop Genetics and Breeding, Chinese Academy of Agricultural Sciences, 1985.

B.S. in Agronomy, Gansu Agricultural University, China, 1982.

Professional Experiences:

- 2014 – present Professor and Corn Breeder, Texas A&M University (75%) and Texas Tech University (25%).
- 2004-2014 Associate Professor and Corn Breeder, Texas A&M University (75%) and Texas Tech University (25%).
- 1998-2004 Assistant Professor and Corn Breeder, Texas A&M University (75%) and Tech University (25%).
- 1996-1998 Market Development Manager-Asia, DEKALB Genetics Corporation.
- 1995-1996 Research Scientist, Texas Tech University.
- 1993-1995 Post-Doctoral Research Associate, Texas Tech University.
- 1992-1993 Postdoctoral Fellow, University of Missouri-Columbia.
- 1987-1993 Research Assistant, University of Missouri-Columbia.
- 1987-1988 Visiting Scientist, USDA-ARS and University of Missouri-Columbia.
- 1985-1987 Corn Researcher, Chinese Academy of Agricultural Sciences.

Professional and Honorary Societies:

American Society of America, Crop Science Society of America, Sigma Xi, Gamma Sigma Delta

Current Principal Research Interests:

Breeding multiple stress tolerant corn germplasm for food, feed, and or silage by using conventional and molecular breeding methods; germplasm enhancement; Major target traits include yield, drought and heat tolerance, corn earworm and resistance, and aflatoxin resistance.

Teaching:

PSS 3421 - Fundamental Principles of Genetics (Undergraduate).

PSS 6322 - Advanced Plant Breeding (Graduate).

Awards and Honors:

Outstanding student award from Gansu Agricultural Uni.. 1979, 1981 and 1982.

Outstanding graduate student award from the Graduate School of CAAS. 1983.

Outstanding member of Youth League award from Chinese Ministry of Agr. 1984.

Excellent researcher award from Institute of Crop Germplasm Resources, CAAS. 1986.

The Gerald O. Mott Meritorious Graduate Student Award by Crop Science Society of America, 1992.

Sears-Longwell Award and \$500 scholarship for contribution to genetics in agriculture through scholarship and research from University of Missouri, 1992.

Who's Who in the South and Southwest, 1995.

Most related Products – Intellectual Property and Technology Transfer:

- Nine inbred lines released for public use: Tx202 and Tx203 in 2003, Tx204 and Tx205 in 2004; Tx206, Tx207, Tx208, Tx209, Tx210 in 2012.
- Technology transfer: A total of 28 MTA have been signed with 10 seed companies for licensing the 9 publically released inbred lines as well as the inbred lines for future public release.
- One commercialization agreement with a US seed company for four inbred lines (not released for the public yet) in 2009. These lines have been generating royalty since 2012.
- One commercialization agreement with a Turkey seed company for two silage corn hybrids (parent lines not released for the public yet) in 2013.
- In addition, specialty corn inbred lines (four sweet corn and five brown-midrib for silage) were licensed to seed companies.

Selected Publications:

- Wan, C., W.W. Xu*, R.E. Sosebee, S. Machado, and T. Archer. 2000. Hydraulic lift in drought-tolerant and -susceptible maize hybrids. *Plant and Soil* 219:117-126. (* *corresponding author*)
- Xu, Wenwei, Linda Pollak, and E.D. Bynum Jr. 2003. Tropical x temperate germplasm resistant to corn earworm (Lepidoptera: noctuidae). *Crop Protection* 22:859-864.
- Xu, W.W. T.L. Archer, E.D. Bynum, Jr., G. Odvody. 2004. Registration of maize germplasm line Tx202. *Crop Science* 44:1883-1884.
- Xu, W., T.L. Archer, E.D. Bynum, Jr. 2004. Registration of maize germplasm line Tx203. *Crop Science* 44:1884.
- Bynum, E.D. Jr., W. Xu*, and T. L. Archer. 2004. Potential efficacy of spider mite-resistant genes in maize testcrosses. *Crop Protection* 23:625-634 (**Corresponding author*)
- Bynum, E.D. Jr., W. Xu*, and T. L. Archer. 2004. Diallel analysis of spider mite (Acari: Tetranychidae) resistant maize inbred lines and F₁ Crosses. *Crop Science* 44:1535-1541(**Corresponding author*).
- Ni, X., W., Xu, M. Krakowsky, G.D. Buntin, S.L. Brown, L.D. Lee, and A.E. Coy. 2007. Field screening of experimental corn hybrids and inbred lines for multiple ear-feeding insect resistance. *Journal of Economic Entomology*. 100: 1704-1713.
- Chen, J., W. Xu, J. Burke, and Z Xin. Z. 2010. Effect of high temperature on membrane thermostability: role of membrane lipids in high temperature tolerance in maize. *Crop Science* 50:2506-2515.
- Wenwei Xu, Xu Guoliang, Li Shuhua, Yingen Xue, Cai Zhuo. 2011. Breeding maize hybrids for high silage yield and quality. *Journal of Maize Sciences*.19 (3):1-6.
- Xinzh Ni, Jeffrey P. Wilson, Michael D. Toews, G. David Buntin, Xin Li, Zhongren Lei, Kanglai He, Wenwei Xu, Xianchun Li, Alisa Huffaker, and Eric A. Schmelz. 2012. Evaluation of Spatial and Temporal Patterns of Insect Damage and Aflatoxin Level in the Pre-Harvest Corn Fields to Improve Management Tactics. *Insect Science* 00, 1–12, DOI 10.1111/j.1744-7917.2012.01531.x.
- Xinzh Ni, Wenwei Xu, Michael H. Blanco, and Jeffrey P. Wilson. 2012. Evaluation of Corn Germplasm Lines for Multiple Ear-Colonizing. *J. Econ. Entomol.* 105(4): 1457-1464. DOI: <http://dx.doi.org/10.1603/EC12115>.

- Junping Chen, Wenwei Xu, Jeff Velten, Zhanguo Xin, and John Stout. 2012. Characterization of maize inbred lines for drought and heat tolerance. *Journal of Soil and Water Conservation* 2012 67(5):354-364; doi:10.2489/jswc.67.5.354
- Genhua Niu, Wenwei Xu, Denise Rodriguez and Youping Sun. 2012. Growth and physiological responses of maize and sorghum genotypes to salt stress, *ISRN Agronomy* Volume 2012, Article ID 145072, 12 pages. doi:10.5402/2012/145072.
- Xiao Dan Liu, Shu-Hua Li, Guo-liang Xu, Yingen Xue, Wenwei Xu*. 2012. Review of genetically modified maize. *Journal of Maize Science*. 20(6):1-8. (*corresponding author).
- Warburton, M.L., W. Paul Williams, G. L. Windham, S. C. Murray, W. Xu, L. K. Hawkins, and J. F. Duran. 2013. Phenotypic and genetic characterization of a maize association mapping panel for new sources of *Aspergillus flavus* and aflatoxin accumulation resistance. *Crop Science* 53(6): 2374-2383.
- Xinzhi Ni, Wenwei Xu, Michael H. Blanco, and W. Paul Williams. 2013. Evaluation of Fall Armyworm Resistance in Maize Germplasm Lines Using Visual Leaf Injury Rating and Predator Survey. *Insect Science* (accepted).
- Charlene A. Farias, Michael J. Brewer, Darwin J. Anderson, Gary N. Odvody, Wenwei Xu and Mamoudou Sétamou. 2014. Native Maize Resistance to Corn Earworm, *Helicoverpa zea*, and Fall Armyworm, *Spodoptera frugiperda*, with Notes on Aflatoxin Content. Source: *Southwestern Entomologist*, 39(2):411-426. 2014. DOI: <http://dx.doi.org/10.3958/059.039.0303>.
- Shoulin Jiang, Zongchao Zhao, Junsheng Li, Jinglan He, Yingen Xue, Wenwei Xu, Limin Zhang, and Fajun Chen. 2014. Damage of Maize Borer and Maize Weevil on the Yield of Transgenic Phytase Maize. *Agronomy Journal* Vol. 107:1-8. Doi:10.2134/agronj14.0366.
- Xinzhi Ni, Wenwei Xu, Michael H. Blanco and W. Paul Williams. 2014. Evaluation of fall armyworm resistance in maize germplasm lines using visual leaf injury rating and predator survey. *Insect Science* 21:541-555. DOI 10.1111/1744-7917.12093.
- Xinzhi Ni, Zhongren Lei, Kanglai He, Xin Li, Xianchun Li and Wenwei Xu. 2014. Integrated pest management is the lucrative bridge connecting the ever emerging knowledge islands of genetics and ecology. *Insect Science* (2014) 00, 1–4, DOI 10.1111/1744-7917.12151.
- J E C Teixeira, T Weldekidan, N de Leon, S Flint-Garcia, J B Holland, N Lauter, S C Murray, W Xu, D A Hessel, A E Kleintop, J A Hawk, A Hallauer and R J Wisser. 2014. Hallauer's Tusón: a decade of selection for tropical-to-temperate phenological adaptation in maize. *Heredity* advance online publication, November 5, 2014; doi:10.1038/hdy.2014.90.
- Marilyn L. Warburton, Juliet D. Tang, Gary L. Windham, Leigh K. Hawkins, Seth C. Murray, Wenwei Xu, Debbie Boykin, Andy Perkins, and W. Paul Williams 2014. Genome-wide association mapping of *Aspergillus flavus* and aflatoxin accumulation resistance in maize (*Crop Science*, accepted).

Synergistic Activities:

- Member of U.S. Maize Crop Germplasm Committee, 2011 - present
- Technical Steering Group of USDA Germplasm Enhancement of Maize Project. 2003 – 2006 (1st term), 2007- 2009 (2nd term).
- Texas State Crop Testing Program Advisory Board. 2003 to present
- Editorial Board of *Journal of Maize Sciences* (A referred journal published in China).
- Editorial Board of *Journal of Crop Science*.