#### Biographical Sketch

#### Xu Wang

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#### EDUCATION

Ph.D. 2014 **Kansas State** **University**, Biological and Agricultural Engineering

M.S. 2008 **China Agricultural** **University**, Computer Application Technology

B.S. 2006 **China Agricultural** **University**, Computer Science and Technology

#### PROFESSIONAL EXPERIENCE

10/21-present **Assistant Professor,** Department of Agricultural and Biological Engineering, University of Florida

10/14-9/21 **Research Associate,** Department of Plant Pathology, Kansas State University

#### PROFESSIONAL ACTIVITIES

* Guest lecturer, HOS6932 Survey of Breeding Tools and Methods, Phenomics session, every Spring semester.
* Extension program – Novel sensing and AI applications for crop breeding and production.
* Remote pilot for small uncrewed aircraft, P107, FAA, 2018.
* Associate Editor, *Plant Phenomics*, since 2023.

#### HONORS & AWARDS

* Outstanding young Extension Worker, Florida Section ASABE, 2023.

#### GRANTS RECEIVED

#### 2025-2027, “Nickel Farming: Improving a US-Native Hyperaccumulator Plant for Commercial Cultivation”, Co-PI, ARPA-E, DoE.

#### 2024-2025, “Refining AI-Assisted Runner Identification in Strawberry Breeding”, PI, FSREF.

#### 2023-2024, “Enhancing Strawberry Breeding with AI-Assisted Runner and Flower Identification”, PI, FSREF.

#### 2023-2024, “Phenome Insight – An Integrated Web-GIS Platform for Generation, Visualization, and Analysis of Strawberry Phenotypes for Breeding”, PI, FSREF.

#### PUBLICATIONS (last 4 years)

1. Zheng, C., Abd-Elrahman, A., Whitaker, V. M., Wang, X., Dalid, C., & Shen, K. (2024). Strawberry canopy structural parameters estimation and growth analysis from UAV multispectral imagery using a geospatial tool. Computers and Electronics in Agriculture, 226, 109440. https://doi.org/10.1016/j.compag.2024.109440
2. Ji, L., Wang, X., Cordova, G., Deng, Z. (2024). Predicting Caladium Tuber Weight from Canopy Traits through High-Throughput Aerial Imagery. In 2024 ASABE Annual International Meeting. (p. 1). American Society of Agricultural and Biological Engineers. https://doi.org/10.13031/aim.202400764
3. Hu, Z., Wang, X., Marla, S.R., Poland, J., & Morris G.P. (2024). An extended omnigenic model explains genome-phenome relationships for complex traits in global sorghum diversity. bioRxiv 2024.04.29.591686. https://doi.org/10.1101/2024.04.29.591686
4. Raymundo, R., Wang, X., Felderhoff, T., Sexton-Bowser, S., Poland, J., Lipka, A. E., & Morris, G. P. (2023). Field phenomics reveals genetic variation for transpiration response to vapor pressure deficit in sorghum. bioRxiv, 2023-06.
5. Togninalli, M., Wang, X., Kucera, T., Shrestha, S., Juliana, P., Mondal, S., ... and Poland, J. (2023). Multi-modal deep learning improves grain yield prediction in wheat breeding by fusing genomics and phenomics. Bioinformatics, 39(6), btad336. https://doi.org/10.1093/bioinformatics/btad336
6. Marla, S., Felderhoff, T., Hayes, C., Perumal, R., Wang, X., Poland, J., and Morris, G. P. Genomics and Phenomics Enabled Prebreeding Improved Early-Season Chilling Tolerance in Sorghum. G3, jkad116. https://doi.org/10.1093/g3journal/jkad116
7. Yang, X., Wang, X., Evers, B., Cui, Y. and Poland, J., 2022. Spectral correlation between wheat genotype replications over the visible and near-infrared spectrum. Remote Sensing Letters, 13(12), pp.1203-1212. https://doi.org/10.1080/2150704X.2022.2138619
8. Crain, J., Wang, X., Evers, B. and Poland, J., 2022. Evaluation of field‐based single plant phenotyping for wheat breeding. The Plant Phenome Journal, 5(1), p.e20045. https://doi.org/10.1002/ppj2.20045
9. Silva, P., Evers, B., Kieffaber, A., Wang, X., Brown, R., Gao, L., Fritz, A., Crain, J. and Poland, J., 2022. Applied phenomics and genomics for improving barley yellow dwarf resistance in winter wheat. G3, 12(7), p.jkac064. https://doi.org/10.1093/g3journal/jkac064
10. David, E., Serouart, M., Smith, D., Madec, S., Velumani, K., Liu, S., Wang, X., et al. Global Wheat Head Detection 2021: an improved dataset for benchmarking wheat head detection methods. Plant Phenomics 2021 (2021). https://doi.org/10.34133/2021/9846158
11. Gao, L., Koo, D., Juliana, P., Rife, T., Singh, D., da Silva, C. L., Lux, T., Wang, X. et al. The Aegilops ventricosa 2N v S segment in bread wheat: cytology, genomics and breeding. Theoretical and Applied Genetics 134, no. 2 (2021): 529-542. https://doi.org/10.1007/s00122-020-03712-y