

Publications June 2024-June 2025

Indiana:

Berry, L., Yang, Y., Conrad, A., Zhang, C., **Hoagland, L.**, (2025 *in review*). Predicting cadmium uptake across spinach genotypes using hyperspectral imaging and machine learning. Submitted to *The Plant Phenome Journal*

Bogati, S., Carpenter, J., **Wang, D.**, 2025. Divergence of root system traits in soybean between breeding and diversity lines. *bioRxiv*

Campbell, Q, Bedford, J.A., **Wang, D.**, Kantar, M.B., 2025. Agricultural landscape genomics to increase crop resilience. *Plant Communications*

Carpenter, J., Bogati, S., **Wang, D.**, Jung, J., 2025. A 3D modeling framework for quantifying variation in soybean root structure architecture. *bioRxiv*

Colley, M., Dawson, J., Zystro, J., **Hoagland, L.**, Liou, M., Myers, J., Silva, E., Simon, P., 2025. Influence of organic and conventional management systems on carrot performance and implications for organic plant breeding. *J. of Am. Soc. Hort. Sci.* doi.org/10.21273/JASHS05459-24

Luis, M., Jaiswal, A., Mengiste, T., Myers, J., **Hoagland, L.**, 2025. Deciphering the mechanisms that regulate variability in induced systemic resistance among tomato genotypes. *Phytopathology* DOI: 10.1094/PHYTO-07-24-0240-R *Editors's Pick Vol. 115(7)*

Luis, M., Johnson, L.D., Vega-Vasquez, P., *Ristroph, K., **Hoagland, L.**, (accepted 2025). Use of cinnamon essential oil nanoemulsions to manage gray mold in tomato. *Plant Disease*

Maynard, E.T., Guan, W., Langenhoven, P., **Hoagland, L.**, 2025. Tomato seedling performance in five commercial organic growing media with and without supplemental fertilizer. *HortTechnology*

Rodriguez-Sanchez, A., Jimenez, M., Filley, T., Brenner, D., Macedo, D., Casa, V., ***Hoagland, L.**, (in revision 2025). Variability in cadmium accumulation in quinoa grain: potential role of crop domestication and other factors mediating differences in resilience and uptake. Submitted to *Science of the Total Environment* and available now on *bioRxiv*

Salinas, C., Rodriguez-Sanchez, A., Caro-Quintero, A., Macedo, D., ***Hoagland, L.**, (in review 2025). The role of seed transmitted endophytes in quinoa tolerance to cadmium stress. Submitted to *Frontiers in Microbiology*

Vargas-Rojas, L., **Wang, D.**, 2025. Dpest: streamlining creation of PEST input files for DSSAT crop model calibration. *Journal of Open Source Software*

Zhang, L., **Hoagland, L.**, Yang, Y., Becchi, P., Sobolev, A., Scioli, G., La Nasa, J., Modugno, F. Lucini, L., 2025. The combination of hyperspectral imaging, untargeted metabolomics and lipidomics highlights a coordinated stress-related biochemical reprogramming triggered by polyethylene nanoparticles in lettuce. *Science of the Total Environment* <https://doi.org/10.1016/j.scitotenv.2025.178604>

Escamilla, D.M., Dietz, N., Bilyeu, K., Hudson, K., **Rainey, K.M.** 2024. Genome-wide association study reveals GmFulb as candidate gene for maturity time and reproductive length in soybean (*Glycine max*). *Plos One*

Diatta-Holgate, E., Bergsma, B., **Tuinstra, M.R.**, 2024. Mutations in the dwarf3 gene confer high stability in sorghum. *The Plant Genome*

Iowa:

Fakude, M., Yavuz, R., Murithi, A., Frei, U.K., Lübberstedt, T. (2025) Association mapping of genomic regions influencing haploid female fertility (HFF) and haploid male fertility (HMF) in BS39 and BS39-SHGD lines. *Theor. Appl. Genet.* 138: 1 <https://doi.org/10.21203/rs.3.rs-4817379/v1>

Foster, T.L., Frei, U.K., Fakude, M., Krause, M.D., Dutta, S., Tracy, W.F., Resende Jr., M.F.R., Lübberstedt, T. (2025) Genome-wide association study of haploid male fertility in sweet corn. *Theor Appl. Genet.* 138:102. <https://doi.org/10.1007/s00122-025-04888-x>

Yavuz, R., Wang, H., Fakude, M., Demail, A., Frei, U.K., Liu, P., Lübberstedt, T. (2025) Genetic variation and heritability of haploid frailty in maize. *Front. Plant Sci.* 16:1572901. doi: 10.3389/fpls.2025.1572901

Uberti, A., Santana, A.S., Nikolau, B.J., DeLima, R.O., Lübberstedt, T. (2025) Molecular breeding approaches for the improvement of oil content and fatty acids composition in exotic-derived maize germplasm. *New Phytologist* (accepted) DOI: 10.1111/nph.70439

Escamilla, D.M., D. Li, K.L. Negus, K.L. Kappelmann, A. Kusmec, A.E. Vanous, P.S. Schnable, X. Li, and J. Yu*. 2025. Genomic selection: Essence, applications, and prospects. *The Plant Genome* 18:e70053. <https://doi.org/10.1002/tpg2.70053>

Tibbs-Cortes, L.E., T. Guo, C.M. Andorf, X. Li*, and J. Yu*. 2024. Comprehensive identification of genomic and environmental determinants of phenotypic plasticity in maize. *Genome Research* 34:1253-1263. <https://doi.org/10.1101/gr.279027.124>.

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North Dakota:

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Ohio:

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Growth, harvest, and serving of Jerusalem Artichoke. Samaneh Tajik, Florence Sessoms. *Ohioline*, Ohio State University Extension, 2025.

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South Dakota:

Adhikari, B., Parajuli, S., & Nepal, M.P. 2025. Reporting complete chloroplast genome of endangered red mulberry, useful for understanding hybridization and phylogenetic relationships. *Scientific Report* 15, 13403. <https://doi.org/10.1038/s41598-025-97618-8>

Bazzer, S.K., Oliveira, G., Fiedler, J.D., Nandety, R. S., Jannink, J.-L., and Caffè, M. Genomic strategies to facilitate breeding for increased β -Glucan content in oat (*Avena sativa* L.). *BMC Genomics* 26, 35 (2025). <https://doi.org/10.1186/s12864-024-11174-5>

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