



Keith Cherkauer
Professor, Agricultural & Biological Engineering
PhD 2001, University of Washington
MS 1994, University of Colorado
BS 1992, Augustana College
Teaches ABE 32500, ABE 53100, ABE 65100

Recent Papers

J Valencia, J Frankenberger, K Cherkauer, JM Martín-López, F Monserrate, Mayesse da Silva. 2022. Water sufficiency for cacao production in the Sierra Nevada de Santa Marta (SNSM) region, Colombia. *Journal of Hydrology: Regional Studies* 44, 101255.

AG de Lima Moraes, AH Watkins, Z Brecheisen, LC Bowling, JPP Caceres, HM Nova, KA Cherkauer. 2022. The fast-changing climate reality of Arequipa, Peru. *International Journal of Climatology*: <https://doi.org/10.1002/joc.7855>.

AGL Moraes, LC Bowling, C Renzo Zeballos-Velarde, F Daneshvar, AH Watkins, KA Cherkauer. 2022. Terrain sensitive climate mapping for the Arequipa Department in Peru. *International Journal of Climatology*: <https://doi.org/10.1002/joc.7730>.

Y Zhu, EM Ludwig, KA Cherkauer. 2022. Estimation of Corn Latent Heat Flux from High Resolution Thermal Imagery. *Remote Sensing* 14 (11), 2682.

MA Lopez, FF Moreira, A Hearst, K Cherkauer, KM Rainey. 2022. Physiological breeding for yield improvement in soybean: solar radiation interception-conversion, and harvest index. *Theoretical and Applied Genetics* 135 (5),1477-1491.

SC Sellars, NM Thompson, ME Wetzstein, L Bowling, K Cherkauer, C Lee, J Frankenberger, B Reinhart. 2022. Does crop insurance inhibit climate change technology adoption? *Mitigation and Adaptation Strategies for Global Change* 27 (3), 1-20.

CI Lee, L Bowling, K Cherkauer, J Frankenberger, J Ackerson. 2021. Modeling subsurface drainage hydroclimatology in the US Corn Belt. *AGU Fall Meeting Abstracts 2021*, H52F-03.

R Popovici, A Moraes, Z Ma, L Zanotti, K Cherkauer, A Erwin, K Mazer, EB Delgado, JP Caceres, P Ranjan, L Prokopy. 2021. How do Indigenous and local knowledge systems respond to climate change? *Ecology and Society* 26 (3).

F Freitas Moreira, H Rojas de Oliveira, MA Lopez, BJ Abughali, G Gomes, KA Cherkauer, LF Brito, KM Rainey. 2021. High-Throughput Phenotyping and Random Regression Models Reveal Temporal Genetic Control of Soybean Biomass Production. *Frontiers in plant science* 12, 715983.

SD Smith, LC Bowling, KM Rainey, KA Cherkauer. 2021. Quantifying Effects of Excess Water Stress at Early Soybean Growth Stages Using Unmanned Aerial Systems. *Remote Sensing* 13 (15), 2911.

F Daneshvar, JR Frankenberger, LC Bowling, KA Cherkauer, AG de Lima Moraes. 2021. Development of strategy for SWAT hydrologic modeling in data-scarce regions of Peru. *Journal of Hydrologic Engineering* 26 (7), 05021016.

KA Cherkauer, LC Bowling, K Byun, I Chaubey, N Chin, DL Ficklin, AF Hamlet, SJ Kines, CI Lee, R Neupane, GW Pignotti, S Rahman, S Singh, PV Femeena, TN Williamson. 2021. Climate change impacts and strategies for adaptation for water resource management in Indiana. *Climatic Change* 165 (1), 1-20.

LC Bowling, KA Cherkauer, CI Lee, JL Beckerman, S Brouder, JR Buzan, OC Doering, JS Dukes, PD Ebner, JR Frankenberger, BM Gramig, EJ Kladviko, JJ Volenec (2020). Agricultural impacts of climate change in Indiana and potential adaptations. *Climatic Change* 163, 2005–2027.

Lyu, B., S.D. Smith, X. Yexiang, K.M. Rainey, and K.A. Cherkauer (2020). An Efficient Pipeline for Crop Image Extraction and Vegetation Index Derivation Using Unmanned Aerial Systems. *Transactions of the ASABE*. 63(4): 1133-1146

Recent Patents

AA Hearst, KA Cherkauer, KM Rainey. System and method for processing images of agricultural fields for remote phenotype measurement. US Patent 11,334,986, 2022.