

## Eric D. Hunt

Assistant Extension Educator of Agricultural Meteorology and Climate Resilience  
School of Natural Resources

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### EDUCATION & TRAINING

University of Oklahoma	Meteorology	B.S., 2005
University of Nebraska	Natural Resources Sciences	M.S., 2007
University of Nebraska	Natural Resources Sciences	Ph.D., 2015

### RESEARCH & PROFESSIONAL EXPERIENCE

04/23-present	Assistant Extension Educator, University of Nebraska
01/23-present	Instructor, University of Nebraska
03/12-11/22	Staff Scientist, Atmospheric and Environmental Research, Inc.

### SYNERGISTIC ACTIVITIES

- Member of American Meteorological Society, American Geophysical Union, Soil Science Society of America, and American Association of State Climatologists, NIDIS Flash Drought Technical Working Group, Mayor's Environmental Task Force
- 2018-2021: Ph.D. Graduate Committee Outside member, University of Oklahoma, Dr. Ryann Wakefield

### AWARDED GRANTS

NASA: Using SMAP observations and the NASA Land Information Systems (LIS) framework to assess the evolution of soil moisture and vegetation conditions during flash drought and flash recovery events; NNH16CT05C. 2016-2019; 4.00 m/y as a PI

NASA: Enhancing national security decision-making processes for regions vulnerable to the impacts of flash droughts through greater use of NASA resources; 80NSSC19K1266. 2019-2021; 3.1 m/y as a PI

### PUBLICATIONS (refereed journals, last 4 years)

Christian, J., J. Basara, J. Furtado, **E. Hunt**, J. Otkin X. Xiao, L. Lowman, in press: Global Projections of Flash Drought in a Warming Climate. *Nature Communications Earth and Environment*.

**Hunt, E.**, C. Walters, T. Klemm, I. Eronmwon, and J. Cohen. 2022. "Using Analog-Based Seasonal Weather Forecasts to Improve Grain Marketing Decisions" *Choices*. Quarter 1. <https://www.choicesmagazine.org/choices-magazine/submitted-articles/using-analog-based-seasonal-weather-forecasts-to-improve-grain-marketing-decisions>

Otkin, J.A.; Zhong, Y.; **Hunt, E.**; Christian, J.I.; Basara, J.B.; Nguyen, H.; Wheeler, M.C.; Ford, T.W.; Hoell, A.; Svoboda, M.; Anderson, M.C. Development of a Flash Drought Intensity Index. *Atmosphere* **2021**, *12*, 741. <https://doi.org/10.3390/atmos12060741>

Christian, J., J. Basara, **E. Hunt**, J. Otkin, J. Furtado, V. Mishra, X. Xiao, R. Randall, 2021: Global distribution, trends, and drivers of flash drought occurrence. *Nat Commun* **12**, 6330 (2021). <https://doi.org/10.1038/s41467-021-26692-z>

**Hunt, E.**, F. Femia, C. Werrell, J. Christian, J. Otkin, J. Basara, M. Anderson, T. White, C. Hain, R. Randall, K. McGaughey, 2021: Agricultural and food security impacts from the 2010 Russia flash drought. *Weather and Climate Extremes* <https://doi.org/10.1016/j.wace.2021.100383>

**Hunt, E.**, J. Christian, J.B. Basara, L. Lowman, J. Otkin, J. Bell, K. Jarecke, R.A. Wakefield, R. Randall, 2020: The flash drought of 1936. *Journal of Applied and Service Climatology*, 2020 (4), <http://www.doi.org/10.46275/JOASC.2020.11.001>

Christian, J., J. B. Basara, **E. D. Hunt**, J.A. Otkin, X. Xiao, 2020: Flash drought development and cascading impacts associated with the 2010 Russian heatwave. *Environmental Research Letters* **15** 094078

**Hunt, E.**, H. Birge, C. Laingen, M. Licht, J. McMechan, W. Baule, T. Connor, 2020: A perspective on changes in the U.S. Corn Belt. *Environmental Research Letters*, 10.1088/1748-9326/ab9333.

Basara, J., J. Christian, R. Wakefield, J. Otkin, **E. Hunt**, D. Brown, 2019: The Evolution, Propagation, and Spread of Flash Drought in the Central United States During 2012. *Environmental Research Letters*, **14(8)**, 084025.

Christian, J., J.B. Basara, J. A. Otkin, **E. D. Hunt**, R. A. Wakefield, P. X. Flanagan, and X. Xiao, 2019: A Methodology for Flash Drought Identification: Application of Flash Drought Frequency Across the United States, *J. Hydrometeor.*, **20**, 833-846, doi:10.1175/JHM-D-18-0198.1.

Otkin, J. A., Y. Zhong, **E. D. Hunt**, J. Basara, M. Svoboda, M. C. Anderson, and C. Hain, 2019: Assessing the evolution of soil moisture and vegetation conditions during a flash drought – flash recovery sequence over the south-central U.S., *J. Hydrometeor.* , doi:10.1175/JHM-D-18-0171.

Otkin, J., M. Svoboda, **E. Hunt**, T. Ford, M. Anderson, C. Hain, and J. Basara, 2018: Flash droughts: A review and assessment of the challenges imposed by rapid onset droughts in the United States. *Bull. Am. Meteorol. Soc.*, **99**, 911-919, 2018.

#### **PUBLICATIONS (related to project)**

**Hunt, E.**, M. Svoboda, B. Wardlow, K. Hubbard, M. Hayes, T. Arkebauer, 2014: Monitoring the effects of rapid onset of drought on non-irrigated maize with agronomic data and climate-based drought indices. *Agricultural and Forest Meteorology*, 191, 1-11, 2014

**Hunt, E. D.**, K. G. Hubbard, D. A. Wilhite, T. J. Arkebauer, and A. L. Dutcher, 2009: The development and evaluation of a soil moisture index. *Int. J. Climatol.*, **29**, 747–759.