

**Elizabeth A. Walter-Shea** Ph.D.

**EDUCATION:**

B.S. - University of Central Arkansas 1978  
M.S. - Texas A&M University 1981  
Ph.D. - University of Nebraska 1987

**EXPERIENCE:**

Interim Associate Dean (0.5 FTE), College of Agricultural Sciences and Natural Resources, University of Nebraska-Lincoln, August 1, 2017 to present  
Professor, School of Natural Resources, University of Nebraska - Lincoln, July 1, 2003 to present.  
Associate Professor, School of Natural Resource Sciences, University of Nebraska - Lincoln, August 1, 1997 to June 30, 2003.  
Associate Professor, Department of Agricultural Meteorology, University of Nebraska - Lincoln, July 1, 1995 to July 31, 1997.  
Assistant Professor, Department of Agricultural Meteorology, University of Nebraska - Lincoln, January 9, 1989 to June 30, 1995  
Assistant Professor (Special Appointment), Department of Agronomy, University of Nebraska - Lincoln, April 13, 1987 to January 8, 1989

**TEACHING ACTIVITIES:**

2017 CASNR Distinguished Teaching Award  
SNR Teaching Coordinator, August 2000 to July 2004; August 2007 to July 2010  
SNR Graduate Chair, 2012-13; 2015-2017 (August)  
NRES 208; Introduction to Bio-Atmospheric Resources, (Undergraduate), Fall Semester  
NRES 408/808; Microclimate: The Biological Environment, (team-taught) (Undergraduate/Graduate), Fall Semester  
NRES 421/821; Field Techniques in Remote Sensing, (team-taught) (Undergraduate/Graduate), Spring 2016  
NRES 908; Solar Radiation Interactions at the Earth's Surface, (Graduate), Spring Even Years  
Supervision of Undergraduate and Graduate Student Research

**RESEARCH ACTIVITIES:**

Relationships between remotely-sensed spectral properties of vegetated surfaces and biophysical properties; ultraviolet radiation interactions in a vegetative canopy.  
Occasional Reviewer for *Agronomy Journal*, *Remote Sensing of Environment*, *Agricultural and Forest Meteorology*, NASA Research Proposals

## **RESEARCH GRANTS (past 5 years):**

- UV-B Monitoring Program (USDA), Colorado State University. 1996-ongoing. \$2500 annually.  
UV-B climatological network site at the University of Nebraska Agricultural Research and Development Center, Mead Nebraska. Co-Investigator.
- USDA-ARS Long-term Agro-ecosystem Research (LTAR). 2014-ongoing. Platte River-High Plains Aquifer LTAR. Collaborator.
- UNL IANR CASNR. 2014. \$1700. Integrating Interactive Learning Technology in the Classroom. Co-Investigator.
- Dept. of Energy-Berkeley National Lab. 2015. \$120,000. AmeriFlux Core Site Network. Co-Investigator.
- Decagon & SpecNet. 2015. SpecNet Optical Sensor Network for Carbon Flux Analysis across Ecosystems: Optical Sensors for Nebraska AmeriFlux Sites. \$12,500. Principal Investigator.
- University of Nebraska-Lincoln, Agricultural Research Division. 2015. \$79,000. Integrating state of the art technologies into the ARDC long-term AmeriFlux core sites. Co-Investigator.

## **SCIENTIFIC AND PROFESSIONAL SOCIETIES and RECOGNITION:**

- Member, American Association for the Advancement of Science
- Member, American Geophysical Union
- Member, American Meteorological Society
- Member, American Society of Agronomy

## **PUBLICATIONS (past 5 years):**

### ***Refereed Journals:***

- Bavougian, C.M., P.E. Read, and E. Walter-Shea. 2012. Training system effects on sunlight penetration, canopy structure, yield and fruit characteristics of "Frontenac" grapevine (*Vitis* spp.). *International Journal of Fruit Science* 12:402-409. DOI: 10.1080/15538362.2012.679178
- Meyer, G. E., E.T. Pappozzi, E.A. Walter-Shea, E.E. Blankenship and S.A. Adams. 2012. An investigation of reflective mulches for use over capillary mat systems for winter-time greenhouse strawberry production. *Applied Engineering in Agriculture* 28(2): 271-279.
- Zygielbaum, A.I., T.J. Arkebauer, E.A. Walter-Shea, and D. L. Scoby. 2012. Detection and measurement of vegetation photoprotection stress response using PAR reflectance. *Israel Journal of Plant Sciences* 60: 37-48.
- Nguy-Robertson, A., A., Gitelson, Y. Peng, E. Walter-Shea, B. Leavitt and T. Arkebauer. 2013. Continuous monitoring of crop reflectance, vegetation fraction, and identification of developmental stages using a four band radiometer. *Agronomy Journal* 105(6):1769-1779.
- Schwarz, C.N.A., E.A. Walter-Shea, K.G. Hubbard, and R. Sutton. In revision. Green roof microclimate I: Energy balance partitioning for sedum and native grasses. *Journal of Living Architecture*.
- Xu, Z, R. Sutton, E.T. Pappozzi, and E. A. Walter-Shea. In revision. Green roof microclimate II: patch seeding native prairie plants. *Journal of Living Architecture*.

Luo, G., A. Tureniguli, G. Yin, Q. Hu, and E. Walter-Shea. In review. Evaluation of a process agro-ecosystem model (Agro-IBIS) for maize in Xinjiang, Northwest China. *Field Crops Research*.

Walter-Shea, E.A., K.G. Hubbard, M.A. Mesarch, and G. Roebke. Submitted. Improving the calibration of silicon cell pyranometers. *Meteorology and Atmospheric Physics*.