

CURRICULUM VITAE

NAME

Bauerle, William L

ADDRESS

Horticulture and Landscape Architecture
College of Agricultural Sciences

Shepardson

PHONE

(970) 491-4088

EDUCATION

BS, Colorado State University

MS, University of Washington

Ph D, Cornell University

ACADEMIC POSITIONS

October 1, 2007 - 2007 Associate Professor -With Tenure, Clemson University.

SABBATICALS

(2015) National Center for Atmospheric Research, Advance model parameterization of mechanistic models.

OTHER POSITIONS

2012 - Present Professor, Colorado State University.

2007 - Present Graduate Faculty, Colorado State University.

2007 - 2012 Associate Professor, Colorado State University.

2004 - 2010 Joint Appointment, Clemson University.

2004 - 2010 Graduate Faculty, Duke University.

2001 - 2007 Assistant Professor, Clemson University.

PUBLISHED WORKS

Refereed Journal Articles

A fiberoptic-based system for integrating photosynthetically active radiation in plant canopies. *Hortscience*, 39, 1027-1029.

A nursery and greenhouse online knowledge center: Learning opportunities for sustainable practice. *HortTechnology*, 20, 509-517.

- Abscisic acid synthesis in *Acer rubrum* L leaves - A vapor-pressure-deficit-mediated response. *J Am Soc Hortic Sci*, 129, 182-187.
- Adaptation of the biological simulation model MAESTRA for use in a generic user interface. *Agron J*, 98, 220-228.
- An analysis of ecophysiological responses to drought in American Chestnut. *Ann Forest Sci*, 63, 833-842.
- Characterization of Rubisco activase from thermally contrasting genotypes of *Acer rubrum* (Aceraceae). *Am J Bot*, 94, 926-934.
- Fletcher, R., Mullen, J., Yoder, S., Bauerle, W. L., Reuning, G., Sen, S., Meyer, E., Juenger, T., McKay, J. Development of a next-generation NIL library in *Arabidopsis thaliana* for dissecting complex traits. *BMC Genomics*, 14(655). www.biomedcentral.com/1471-2164/14/655
- Drought impact on forest growth and mortality in the southeast USA. *Ecol Appl*, 19, 699-708.
- Ecophysiology of *Acer rubrum* seedlings from contrasting hydrologic habitats. *Tree Physiol*, 23, 841-850.
- Effect of natural atmospheric CO₂ fertilization suggested by open-grown white spruce in a dry environment. *Global Change Biol*, 12, 601-610.
- Effects of light acclimation on the photosynthesis, growth, and biomass allocation in American chestnut (*Castanea dentata*) seedlings. *Forest Ecol Manag*, 226, 173-180.
- Effects of light intensity on the growth and energy balance of photosystem II electron transport in *Quercus alba* seedlings. *Ann Forest Sci*, 63, 111-118.
- Effects of prescribed fires on first-year establishment of white oak (*Quercus alba* L) seedlings in the Upper Piedmont of South Carolina, USA. *Forest Ecol Manag*, 213, 328-337.
- Effects of scrubber by-product-stabilized dairy lagoon sludge on growth and physiological responses of sunflower (*Helianthus annuus* L). *Chemosphere*, 64, 152-160.
- Effects of trinexapac-ethyl on the salinity tolerance of two ultradwarf bermudagrass cultivars. *Hortscience*, 41, 808-814.
- Explaining growth of individual trees. *Forest Ecol Manag*, 259, 1704-1713.
- Exploring the importance of within-canopy spatial temperature variation on transpiration predictions. *J Exp Bot*, 60, 3665-3676.
- Genotypic variability in photosynthesis, water use, and light absorption among red and Freeman maple cultivars in response to drought stress. *J Am Soc Hortic Sci*, 128, 337-342.
- Growth temperature modulates the spatial variability of leaf morphology and chemical elements within crowns of climatically divergent *Acer rubrum* genotypes. *Tree Physiol*, 29, 869-877.
- Hydraulic resistance. *Hortscience*, 41, 1058-1058.
- Improving Species and Cultivar Specific Estimates of Transpiration by Using Physiologically Based Approaches. *Hortscience*, 39, 883-883.
- Influence of brick air scrubber by-product on growth and development of corn and hybrid poplar. *Bioresource*

Technol, 98, 1085-1094.

Inhibition and acclimation of C-3 photosynthesis to moderate heat. *Tree Physiol*, 27, 1083-1092.

Leaf abscisic acid accumulation in response to substrate water content. *Hortscience*, 41, 1057-1057.

Leaf abscisic acid accumulation in response to substrate water content. *J Am Soc Hortic Sci*, 131, 295-301.

Leaf absorptance of photosynthetically active radiation in relation to chlorophyll meter estimates among woody plant species. *Sci Hortic-Amsterdam*, 101, 169-178.

Bauerle, W. L. Leaf area and light use efficiency patterns of Norway spruce under different thinning regimes and age classes. *Forest Ecology and Management*, 288, 49-59.

(in press). Leaf area and light use efficiency patterns of Norway spruce under different thinning regimes and age classes. *Forest Ecology and Management (accepted - in press)*.

Measurement and modeling of the transpiration of a temperate red maple container nursery. *Agr Forest Meteorol*, 114, 45-57.

Measuring and modeling the variation in species-specific transpiration in temperate deciduous hardwoods. *Tree Physiol*, 28, 1675-1683.

Modeling intra-crown and intra-canopy interactions in red maple. *Tree Physiol*, 24, 589-597.

(in press). Optimizing substrate moisture measurements in containerized nurseries. *HortScience (accepted - in press)*.

Optimizing substrate moisture measurements in containerized nurseries. *HortScience*, 47, 98-104.

Photoperiod explains seasonal carbon gain patterns in forests better than temperature: Implications for carbon cycling under climate change. *Target Journal – Proceedings of the National Academy of Sciences*.

Photoperiodic regulation of the seasonal pattern of photosynthetic capacity and the implications for carbon cycling. *Proceedings of the National Academy of Sciences of the United States of America*, 109, 8612-8617.

Predicting the growth of deciduous tree species in response to water stress. *Ecol Model*, 217, 139-147.

Predicting transpiration response to climate change: Insights on physiological and morphological interactions that modulate water exchange from leaves to canopies. *HortScience*, 46, 163-166.

Response of six bermudagrass cultivars to different irrigation intervals. *Horttechnology*, 16, 466-470.

Root foraging in response to heterogeneous soil moisture in two grapevines that differ in potential growth rate. *New Phytol*, 179, 857-866.

Bauerle, T. L., Bauerle, W. L., Goebel, M., Barnard, D. M. Root System Distribution Influences Substrate Moisture Measurements in Containerized Ornamental Tree Species. *HortTechnology*, 23(6), 754-759.

Separating foliar physiology from morphology reveals the relative roles of vertically structured transpiration factors within red maple crowns and limitations of larger scale models. *Journal of Experimental Botany*, 62, 4295-4307.

Shifts in xylem vessel diameter and embolisms in grafted apple trees of differing rootstock growth potential in response to drought. *Planta*, 234, 1045-1054.

- Simulating carbon dioxide exchange rates of deciduous tree species. *Ann Bot-London*, 104, 775-784.
- Bauerle, W. L. Stem production, light absorption and light use efficiency between dominant and non-dominant trees of *Eucalyptus grandis* across a productivity gradient in Brazil. *Forest Ecology and Management*, 288, 14-20.
- Stomatal conductance of *Acer rubrum* ecotypes under varying soil and atmospheric water conditions. *Tree Physiol*, 24, 805-811.
- Stomatal Control by Both Abscisic Acid in the Bulk Leaf Tissue and Leaf Environment. *Hortscience*, 39, 855-855.
- Bauerle, W. L. The implications of minimum stomatal conductance on modeling water flux in forest canopies. *Journal of Geophysical Research - Biogeosciences*, in review, 118, 1322-1333.
- The influence of temperature on within-canopy acclimation and variation in leaf photosynthesis. *J Exp Bot*, 58, 3285-3298.
- Tree water storage and its diurnal dynamics related to sap flow and changes in stem volume in old-growth Douglas-fir trees. *Tree Physiol*, 27, 181-198.
- Within-crown variation in the development of photosynthetic capacity is proportional to growth temperature in temperate deciduous trees. *Hortscience*, 41, 999-999.
- Becker, S. R., Byrne, P. F., Reid, S. D., Bauerle, W. L., McKay, J. K., Haley, S. D. (2016). Root traits contributing to drought tolerance of synthetic hexaploid wheat in a greenhouse study. *Euphytica*, 207(1), 213-224.
- Bauerle, W. L. (2015). Global scale environmental control of plant photosynthetic capacity. *Ecological Applications*.
- Barnard, D. M., Bauerle, W. L. (2015). Species-specific irrigation scheduling with a spatially explicit biophysical model: A comparison to substrate moisture sensing with insight into simplified physiological parameterization. *Agricultural and Forest Meteorology*, 214-215, 48-59.
- Reuning, G. A., Bauerle, W. L., Mullen, J. L., McKay, J. K. (2015). Combining quantitative trait loci analysis with physiological models to predict genotype-specific transpiration rates. *Plant, cell & environment*, 38(4), 710-717.
- Reuning, G., Bauerle, W. L., Mullen, J. L., McKay, J. K. (2015). Combining quantitative trait loci analysis with physiological models to predict genotype specific transpiration rates. *Plant, Cell & Environment*, 38, 710-717.
- Bauerle, W. L., Daniels, A. B., Barnard, D. M. (2014). Carbon and water flux responses to physiology by environment interactions: A sensitivity analysis of variation in climate on photosynthetic and stomatal parameters. *Climate Dynamics*, 42, 2539-2554.
- Bauerle, W. L. (2014). Controls on seasonal patterns of maximum ecosystem carbon uptake and canopy-scale photosynthetic light response: Contributions from both temperature and photoperiod. *Photosynthesis Research*, 119, 49-64.
- Lea-Cox, J., Bauerle, W. L., van Iersel, M., Kantor, G., Bauerle, T., Lichtenberg, E., King, D., Crawford, L. (2013). Advancing Wireless Sensor Networks for Irrigation Management of Ornamental Crops: An Overview. *HortTechnology*, 23(6), 717-724.

Non-Refereed Journal Articles

Investigating the influence of artificially extended photoperiod on seasonal variation in the maximum rate of Rubisco-mediated carboxylation. *125th Annual Association of Public and Land-grant Universities Conference November 12, Denver, CO.*

Ali, A., Xu, C., Rogers, A., McDowell, N., Medlyn, B., Fisher, R., Wullschlegger, S., Reich, P., Vrugt, J., Bauerle, W. L., Santiago, L., Wilson, C. (2015). Global Scale Environmental Control of Plant Photosynthetic Capacity. *Ecological Applications*, 25, 2349-2365.

Cavalari, M., Coble, A., Bauerle, W., Loescher, H., Ryan, M. Understanding the sources of interannual variability of carbon balance from an old growth tropical rain forest. *New Phytologist*.

Barnard, D., Bauerle, W. L. Species-specific irrigation scheduling with a spatially explicit biophysical model: a comparison to substrate moisture sensing with insight into simplified physiological parameterization. *Agriculture and Forest Meteorology*.

Ali, A., XU, C., Rogers, A., McDowell, N., Medlyn, B., Fisher, R., WULLSCHLEGER, S., Reich, P., Vrugt, J., Bauerle, W. L., Santiago, L., Wilson, C. Global scale environmental control of plant photosynthetic capacity. *Ecological Applications*.

Reuning, G., Bauerle, W. L., Mullen, J. L., McKay, J. K. (2014). Combining quantitative trait loci analysis with physiological models to predict genotype specific transpiration rates. *Plant, Cell and Environment*.

Fletcher, R. S., Mullen, J. L., Yoder, S., Bauerle, W. L., Reuning, G., Sen, S., Meyer, E., Juenger, T. E., McKay, J. K. (2013). Development of a next-generation NIL library in *Arabidopsis thaliana* for dissecting complex traits. *BMC genomics*, 14, 655.

A comparison of calibrated sap flow and MAESTRA model simulation estimates of tree transpiration in a Eucalyptus plantation. Fall Meeting American Geophysical Union December 16th San Francisco, CA.

Assessment of the 1998-2001 drought impact on forest health in southeastern forests: an analysis of drought severity using FHM data (pp. 553-554). Stanturf, John A, ed; Proceedings of the 14th biennial southern silvicultural research conference Gen Tech Rep SRS- 121 Asheville, NC: US Department of Agriculture, Forest Service, Southern Research Station.

Investigating the influence of artificially extended photoperiod on seasonal variation in the maximum rate of Rubisco-mediated carboxylation. 125th Annual Association of Public and Land-grant Universities Conference November 12, Denver, CO.

Measurement and modeling plant water use to quantify nursery water requirements. Floriculture and Nursery Research Initiative 2011 Report July, 3 pages.

Mechanistic models: Application in basic and applied woody ornamental water relations research (8th ed., vol. 45, pp. S46). HortScience.

Nursery production technologies for enhancing water quality protection and water conservation. Land Grant & Sea Grant National Water Conference February 21-25, Hilton Head, SC.

Optimizing substrate moisture measurements in containerized nurseries: Insights on spatial and temporal variability (9th ed., vol. 49, pp. S207). 108th Annual American Society for Horticulture Science Conference, Waikoloa, HI; HortScience.

Photoperiodic regulation of the seasonal pattern of photosynthetic capacity and the implications for carbon

cycling. Ecological Society of America, August 5-10, Portland OR.

Photoperiodic regulation of the seasonal pattern of photosynthetic capacity and the implications for carbon cycling. American Geophysical Union Fall Meeting, December 3-7, San Francisco, CA.

Precision irrigation and nutrient management for nursery, greenhouse and green roof systems: sensor networks for feedback and feed-forward control (8th ed., vol. 45, pp. S86-S87). HortScience.

Precision irrigation and nutrient management for nursery, greenhouse and green roof systems: Wireless sensor networks for feedback and feed-forward control. USDA- Specialty Crop Research Initiative Year 1 report 89 pages.

Precision irrigation and nutrient management for nursery, greenhouse and green roof systems: Wireless sensor networks for feedback and feed-forward control. Annual International Meeting American Society Agriculture & Biological Engineers June 23rd Pittsburgh, PA.

Predicting transpiration response to climate change: Insights on physiological and morphological interactions that modulate water exchange from leaves to canopies (8th ed., vol. 45, pp. S14). HortScience.

Residual stomatal conductance: an underestimated parameter of global significance. Ecological Society of America, August 5-10, Portland OR.

SCRIMINDS: Some management and communication strategies for a national coordinated agricultural project (8th ed., vol. 45, pp. S202-203). HortScience.

Separating foliar physiology from morphology reveals the relative roles of vertically structured transpiration factors within red maple crowns (9th ed., vol. 46, pp. S146). 108th Annual American Society for Horticulture Science Conference Bauerle WL Waikoloa, HI ; HortScience.

Specialty Crop Research Initiative Year 2 Report 56 pages.

Study shows trees absorb less carbon than earlier thought; Leaf activity drops during summer. CSU Website feature story June , <http://www.today.colostate.edu/story.aspx?id=7272>.

Sustainable nursery production. <http://www.clemson.edu/extension/horticulture/nursery/index.html>.

The green industry knowledge center for water, nutrient and plant health management. <http://www.waternutorg/>.

Trees Absorb Less Carbon in Warming World Than Experts Have Assumed. InsideClimate News: <http://www.insideclimatenews.org/news/20120523/trees-forests-co2-carbon-photosynthesis-deforestation-wildfires-drought>.

Trees are the answer? (pp. 5-Apr). The College of Agriculture Sciences Magazine 'Food for Thought' Fall.

Variation in within canopy attenuation of wind speed in container grown trees: Measurement errors and their impact on canopy transpiration estimates (9th ed., vol. 46, pp. S195). 108th Annual American Society for Horticulture Science Conference Barnard, DM* and WL Bauerle Waikoloa, HI; HortScience.

Abstract

Becker, S., Byrne, P. F., Reid, S., Bauerle, W. L., Haley, S. D. (2013). *Synthetic hexaploid wheat improves the yield potential and drought tolerance of bread wheat germplasm*. National Association of Plant Breeders annual meeting.

November 5, 2014, "Physiologically-Based Estimates of Transpiration Under Well-Watered and Water-Stressed Conditions: Seasonal Trends in Photosynthetic Parameters and Stomatal Conductance of Zea Mays and Helianthus Annuus.", ASA, CSSA, SSSA International Annual Meetings, ASA, CSSA, SSSA, (Presenter) Lloyd, G. S., Long Beach, CA.

June 2014, "Physiological-based estimates of transpiration under drought: Seasonal trends in photosynthetic parameters", Plant Breeding for Drought Tolerance, CSU, (Presenter) Miner, G., CSU.

March 2014, "The marginal water cost of carbon gain", Hydrology Days, CSU, (Presenter) Miner, G., CSU.

November 6, 2013, "Towards Improvement of Physiologically Based Estimates of Seasonal Transpiration", ASA, CSSA, SSSA International Annual Meetings, ASA, CSSA, SSSA, (Presenter) Lloyd, G. S., Tampa, Florida.

July 24, 2013, "Bark Beetle Flight in Relation to Lodgepole Pine Host Chemistry: Another Case for Coevolution?", 110th Annual American Society for Horticulture Science Conference, American Society for Horticulture Science, (Presenter) Gadd, T., Palm Desert, California.

July 24, 2013, "Behind the curtain: the support component of wireless soil moisture networks.", 110th Annual American Society for Horticulture Science Conference, American Society for Horticulture Science, (Presenter) Crawford, L., Palm Desert, California.

July 24, 2013, "The implications of minimum stomatal conductance on estimating water flux in containerized tree nurseries.", 110th Annual American Society for Horticulture Science Conference, American Society for Horticulture Science, (Presenter) Barnard, D. M., Palm Desert California.

July 24, 2013, "A comparison of the potential for scaling up irrigation scheduling techniques: substrate moisture sensing versus predictive water use modeling", 110th Annual American Society for Horticulture Science Conference., American Society for Horticulture Science, (Presenter) Barnard, D. M., Palm Desert, California.

July 24, 2013, "Carbon and water flux responses to physiology by environment interactions: a sensitivity analysis of climate impacts on biophysical model parameters.", 110th Annual American Society for Horticulture Science Conference., American Society for Horticulture Science., (Presenter) Bauerle, W. L., Palm Desert, California.

June 12, 2013, "Carbon and water flux responses to physiology by environment interactions: a sensitivity analysis of climate impacts on model parameters", Western Society of Crop Science Annual Meeting, Crop Science Society fo America, (Presenter) Bauerle, W. L., Pendleton, Oregon.

February 22, 2013, "The implications of differences in stomatal conductance model parameters on estimates of ecosystem-atmosphere energy exchange.", CESM land model and biogeochemistry working group meetings., National Center for Atmospheric Research, (Presenter) Bauerle, W. L., Boulder, Colorado.

February 18, 2013, "The latest in water technology", CSU Green Industry Advisory Committee, CSU, (Presenter) Bauerle, W. L., Fort Collins, Colorado.

2012, "Banks D. and W.L. Bauerle 2012.
Investigating the influence of
artificially extended photoperiod on
seasonal variation in the maximum rate
of Rubisco-mediated carboxylation.
125th Annual Association of Public and
Land-grant Universities Conference.
November 12, Denver, CO."

2012, "Banks D. and W.L. Bauerle 2012. Investigating the influence of artificially extended photoperiod on seasonal variation in the maximum rate of Rubisco-mediated carboxylation. Celebrate Undergraduate Research and Creativity Showcase. April 17, Fort Collins, CO."

2012, "Barnard, D.M. and W.L. Bauerle. 2012. Residual stomatal conductance: an underestimated parameter of global significance. Ecological Society of America, August 5-10, Portland OR."

2012, "Barnard, D.M. and W.L. Bauerle. 2012. Determining changes in stomatal conductance parameters. Specialty Crops Research Initiative Grant 3rd Annual Meeting, June 18-21, Pullman, WA."

2012, "Bauerle, W.L. 2012 Linked photosynthesis and stomatal conductance parameters: There is a lot left to know! National Center for Atmospheric Research July 5, Boulder, CO."

2012, "Bauerle, W.L. 2012. Demonstration of irrigation scheduling in the future. Colorado Nursery and Greenhouse Association Fall conference. October 24th, 2012."

2012, "Bauerle, W.L. 2012. Models and integration: Scaling key parameters & knowing when parameters are important and why. Specialty Crops Research Initiative Grant 3rd Annual Meeting, June 18-21, Pullman, WA."

2012, "Bauerle, W.L. 2012. Photoperiodic regulation of the seasonal pattern of photosynthetic capacity and the implications for carbon cycling. Science and Math Teachers Workshop. June 15, Greeley, CO."

2012, "Bauerle, W.L. 2012. Plant gas exchange: principles and application. Plant Breeding for Drought Tolerance Short Course, June 12, Fort Collins, CO."

2012, "Bauerle, W.L. 2012. Predicting plant water use on a species or genotype basis: Water needs are dynamic.

November 13th, Wadsworth Controls,
Denver, CO."

2012, "Bauerle, W.L., R. Oren, D.A. Way, S.S.
Qian, P.C. Stoy, P.E. Thornton, J.D.
Bowden, F.M. Hoffman, and R.F.
Reynolds. 2012. Photoperiodic
regulation of the seasonal pattern of
photosynthetic capacity and the
implications for carbon cycling.
American Geophysical Union Fall
Meeting, December 3-7, San Francisco,
CA."

2012, "Bauerle, W.L., R. Oren, D.A. Way, S.S.
Qian, P.C. Stoy, P.E. Thornton, J.D.
Bowden, F.M. Hoffman, and R.F.
Reynolds. 2012. Photoperiodic
regulation of the seasonal pattern of
photosynthetic capacity and the
implications for carbon cycling.
Ecological Society of America, August 5-
10, Portland OR."

2012, "Characterizing crop species water use
parameters. Regenes Management Group
LLC. August 28th, Fort Collins, CO".

2012, "From genotype to phenotype: modeling
water use efficiency traits across
varying levels of soil moisture. April
10, Fort Collins, CO."

2012, "Hands on gas exchange demonstration and
instruction. July 12th, Plant Breeding
for Drought Tolerance, Fort Collins, CO".

2012, "Lloyd, G.S. and W.L. Bauerle. 2012.
Reconciling stomatal conductance model
responses to soil drying. GRAD592 Water
Seminar Series. October 29, Fort
Collins, CO."

2012, "Plant gas exchange: principles and
application. June 12, Plant Breeding
for Drought Tolerance, Fort Collins,
CO."

2011, "A mechanistic approach to predict crop
water use efficiency for deficit
irrigation scheduling".

2011, "Macro-scale measurements and estimates
of transpiration in containerized
nurseries: Insights into within-plot

and temporal variability. Second annual specialty crop research conference for Precision irrigation and nutrient management. Bauerle W.L. Pittsburgh, PA."

2011, "Measurement and modeling physiological processes to determine optimal seasonal cycle metrics for deficit irrigation. USDA-ARS - Deficit irrigation and return flow maintenance. Bauerle W.L. Fort Collins, CO."

2011, "Models and integrating tools; software development. Second annual specialty crop research conference for Precision irrigation and nutrient management. van Iersel, M., W.L. Bauerle, and R. Bauer. Pittsburgh, PA."

2011, "Optimizing substrate moisture measurements in containerized nurseries: Insights on spatial and temporal variability. 108th Annual American Society for Horticulture Science Conference. Barnard, D.M.*, A.B. Daniels+, and W.L. Bauerle. Waikoloa, HI. HortScience 46(9): S207."

2011, "Predicting plant water use on a species or genotype basis: Water needs are dynamic. September 12th, National Nursery Study Group, Avon, OH".

2011, "Regeneration Update - Deficit irrigation and return flow maintenance. Bauerle W.L. Fort Collins, CO."

2011, "Separating foliar physiology from morphology reveals the relative roles of vertically structured transpiration factors within red maple crowns. 108th Annual American Society for Horticulture Science Conference. Bauerle W.L. Waikoloa, HI. HortScience 46(9): S146."

2011, "Variation in within canopy attenuation of wind speed in container grown trees: Measurement errors and their impact on canopy transpiration estimates. 108th Annual American Society for Horticulture Science Conference. Barnard, D.M.* and W.L. Bauerle. Waikoloa, HI. HortScience 46

(9): S195."

2011, "What is the proper time of year to feed your plants?: Nutrient needs are dynamic and they are linked to physiological activity. September 12th, National Nursery Study Group, Avon, OH".

2011, "Within-canopy attenuation of wind speed in container-grown trees: Measurement errors and their impact on canopy transpiration estimates. Second annual specialty crop research conference for Precision irrigation and nutrient management. Barnard, D.M.* and W.L. Bauerle. Pittsburgh, PA."

2010, "Bauerle W.L. 2010. Mechanistic models: Application in basic and applied woody ornamental water relations research. American Society for Horticulture Science. Palm Desert, CA."

2010, "Bauerle W.L. 2010. Predicting transpiration response to climate change: Insights on physiological and morphological interactions that modulate water exchange from leaves to canopies. American Society for Horticulture Science. Palm Desert, CA."

2010, "Bauerle, W.L., J.D. Lea Cox, G.A. Kantor, M. van Iersel, C. Campbell, T. Bauerle, D.S. Ross, A. Ristvey, D. Parker, D. King, R. Bauer, S. Cohan, P.A. Thomas, J.M. Ruter, M. Chappell, S. Kampf, M.A. Lefsky, L. Bissey, and T. Martin. 2010. Managing irrigation via distributed wireless sensing, prediction, and control: Overview for Denver Botanic Gardens. January 14th Denver Botanic Gardens, Denver, CO."

2010, "Bauerle, W.L., J.D. Lea Cox, G.A. Kantor, M. van Iersel, C. Campbell, T. Bauerle, D.S. Ross, A. Ristvey, D. Parker, D. King, R. Bauer, S. Cohan, P.A. Thomas, J.M. Ruter, M. Chappell, S. Kampf, M.A. Lefsky, L. Bissey, and T. Martin. 2010. Overview of a national coordinated agriculture project for precision irrigation at multiple scales. October 21st Rocky Mountain Short Course,

Colorado Nursery and Greenhouse Association. Thornton, CO."

2010, "Bauerle, W.L., J.D. Lea Cox, G.A. Kantor, M. van Iersel, C. Campbell, T. Bauerle, D.S. Ross, A. Ristvey, D. Parker, D. King, R. Bauer, S. Cohan, P.A. Thomas, J.M. Ruter, M. Chappell, S. Kampf, M.A. Lefsky, L. Bissey, and T. Martin. 2010. Overview of a national coordinated agriculture project for precision irrigation at multiple scales: Overview for Department of Horticulture & Landscape Architecture. February 10th Colorado State University, Fort Collins, CO."

2010, "Bauerle, W.L., S. Kampf, M.A. Lefsky, and T.L. Bauerle. 2010. Managing irrigation from the plant to the production site: A macro-scale overview. January 21st University of Maryland, College Park, MD."

2010, "Campoe, O.C., J.S.D. Rojas, J.L. Stape, J.P. Laclau, G.I. Maire, W.L. Bauerle, C. Marsden, Y. Nouvellon. 2010. A comparison of calibrated sap flow and MAESTRA model simulation estimates of tree transpiration in a Eucalyptus plantation. Fall Meeting. American Geophysical Union. December 16th. San Francisco, CA."

2010, "Lea Cox, J.D., G.A. Kantor, W.L. Bauerle, M. van Iersel, C. Campbell, T. Bauerle, D.S. Ross, A. Ristvey, D. Parker, D. King, R. Bauer, S. Cohan, P.A. Thomas, J.M. Ruter, M. Chappell, S. Kampf, M.A. Lefsky, L. Bissey, and T. Martin. 2010. Precision irrigation and nutrient management for nursery, greenhouse and green roof systems: sensor networks for feedback and feed forward control. American Society for Horticulture Science. Palm Desert, CA."

2010, "Lea Cox, J.D., G.A. Kantor, W.L. Bauerle, M. van Iersel, C. Campbell, T. Bauerle, R. Bauer. 2010. SCRIMINDS: Some management and communication strategies for a national coordinated agricultural project. American Society for Horticulture Science. Palm Desert, CA."

2010, "Lea-Cox, J.D., G. Kantor, W. Bauerle, M. van Iersel, C. Campbell, T. Bauerle, D. Ross, A. Ristvey, D. Parker, D. King, R. Bauer, S. Cohan, P. Thomas, J. Ruter, M. Chappell, M. Lefsky, S. Kampf, L. Bissey, T. Martin. 2010. Precision irrigation and nutrient management for nursery, greenhouse and green roof systems: Wireless sensor networks for feedback and feed-forward control. Annual International Meeting. American Society Agriculture & Biological Engineers. June 23rd. Pittsburgh, PA."

2010, "Owen J., S. White, W. Bauerle, J. Albano, T. Yeager, T. Bilderback, and C. Wilson. 2010. Comprehensive nursery production technologies for water quality protection and conservation. Oregon State University, North Willamette Research & Extension Center, Nursery Research & Extension Field Day, September 7th, Aurora, OR."

2010, "Owen, J.S. S.A. White, W.L. Bauerle, J. Albano, C. Wilson, T. Yeager, T. Bilderback. 2010. Nursery production technologies for enhancing water quality protection and water conservation. Land Grant & Sea Grant National Water Conference. February 21-25, Hilton Head, SC."

2010, "Thornton P., W. Bauerle, F. Hoffman, X. Shi, J. Mao, R. Oren, D. Way, S. Qian, J. Bowden, R. Reynolds, P. Stoy. 2010. Seasonal cycle metrics from CLM4/CCSM4 BGC experiments. 15th Annual Community Earth System Model Workshop, June 30th, Breckenridge, CO."

2010, "van Iersel M., W.L. Bauerle, J.D. Lea Cox, A. Ristvey, and P.A. Thomas. 2010. Modeling. January 21st University of Maryland, College Park, MD."

OTHER ACTIVITIES/ACCOMPLISHMENTS – PUBLICATIONS/SCHOLARLY RECORD

(August 27, 2014 - Present). Continuing Education Program, "FastTrack Leadership Training," CSU, Chappell Hill, NC, United States. Approximate Number of Hours Spent Per Year: 50.

(August 2015 - September 2015). Continuing Education Program, "How to build an Online Course," United States.

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	SOCR799 - Dissertation	18	12
2016	Spring	HORT698 - Research	18	15
2016	Spring	HORT699 - Thesis	18	7
2015	Fall	HORT698 - Research	18	18
2015	Spring	HORT576 - Advanced Environmental Plant Stress Physiology	4	16
2015	Spring	HORT576 - Advanced Environmental Plant Stress Physiology - Recitation	0	16
2015	Spring	HORT476 - Environmental Plant Stress Physiology	3	29
2015	Spring	HORT698 - Research	18	13
2015	Spring	HORT784 - Supervised College Teaching	18	4
2014	Fall	HORT799 - Dissertation	18	2
2014	Spring	SOCR799 - Dissertation	18	15
2013	Fall	HORT799 - Dissertation	18	3
2013	Fall	SOCR799 - Dissertation	18	19
2013	Spring	HORT576 - Advanced Environmental Plant Stress Physiology	4	12
2013	Spring	HORT576 - Advanced Environmental Plant Stress Physiology - Recitation	0	12
2013	Spring	SOCR799 - Dissertation	18	17
2013	Spring	HORT476 - Environmental Plant Stress Physiology	3	30
2013	Spring	HORT698 - Research	18	13
2013	Spring	HORT784 - Supervised College Teaching	18	5
2013	Spring	SOCR784 - Supervised College Teaching	18	2
2012	Fall	SOCR799 - Dissertation	18	17
2012	Spring	HORT495 - Independent Study	18	3
2012	Spring	HORT698 - Research	18	14
2011	Fall	BSPM596 - Group Study	3	6
2011	Fall	HORT698 - Research	18	15
2011	Spring	HORT576 - Advanced Environmental Plant Stress Physiology	4	20
2011	Spring	HORT576 - Advanced Environmental Plant Stress Physiology - Recitation	0	20
2011	Spring	HORT799 - Dissertation	18	6
2011	Spring	HORT476 - Environmental Plant Stress Physiology	3	28
2011	Spring	HORT698 - Research	18	9
2010	Fall	HORT698 - Research	18	10
2010	Spring	HORT698 - Research	18	10
2010	Spring	HORT784 - Supervised College Teaching	18	3
2009	Fall	HORT698 - Research	18	12
2009	Spring	HORT576 - Advanced Environmental Plant Stress Physiology	4	20
2009	Spring	HORT576 - Advanced Environmental Plant Stress Physiology - Recitation	0	20
2009	Spring	HORT799 - Dissertation	18	2
2009	Spring	HORT476 - Environmental Plant Stress Physiology	3	16
2009	Spring	ECOL592 - Interdisciplinary Seminar in Ecology	3	4
2009	Spring	HORT698 - Research	18	8
2009	Spring	HORT784 - Supervised College Teaching	18	3
2008	Fall	HORT698 - Research	18	12
2008	Fall	HORT784 - Supervised College Teaching	18	2

2008	Spring	HORT698 - Research	18	12
2008	Spring	HORT784 - Supervised College Teaching	18	3

COMMITTEES

Crop Physiology Faculty Search Committee, (January 1, 2013 - May 15, 2013).

Advancement in Rank and Tenure, (November 1, 2014 - Present).

PERC Relocation Committee, (June 1, 2014 - Present).

Specialty Crops Faculty Search Committee, (January 1, 2015 - December 31, 2015).

Specialty Crops Faculty Search Committee, (June 1, 2013 - December 31, 2013).

Department of Horticulture and Landscape Architecture Advisory Committee, (January 1, 2009 - January 31, 2013).

Department of Horticulture and Landscape Architecture Graduate Admissions Committee, (January 1, 2009 - January 31, 2013).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Geophysical Union. (2008 - Present).

Ecological Society of America. (2002 - Present).

American Society for Horticulture Science. (2001 - Present).

Acta Oecologia.

Member, Advisory Committee.

Advisory panel of technical experts for Greenhouse Management Magazine.

Member, American Geophysical Union.

Member, American Society for Horticulture Science.

Annals of Botany.

Member, ART Committee.

Baltic Forestry.

Reviewer, Ad Hoc Reviewer, BARD-Israel Binational Agricultural Research & Development Fund.

Member, College of Agriculture (CSU) Biofuels faculty search committee.

Member, Deans initiative (water footprint).

Member, Design and management of Colorado landscapes.

Ecological Modelling.

Member, Ecological Society of America.

Functional Ecology.

Geoscience Model Development.

Member, Grad Acceptance.

Committee Chair, Graduate Acceptance Committee.

HortScience.

HortScience.

HortScience.

Reviewer, Ad Hoc Reviewer, InTech Press Book Chapter.

International Journal of Biometeorology.

Irrigation Science.

Reviewer, Ad Hoc Reviewer, National Science Foundation.

Reviewer, Ad Hoc Reviewer, NSF.

Plant Ecology.

Plant, Cell & Environment.

PLoS ONE.

Plos One.

PlosONE.

Member, Soil and Crop Science Search Committee member.

Tree Physiology.

Tree Physiology.

Member, Tree Physiology.

University of California - Davis.

University of Washington.

University of Western Sydney, Australia.

Reviewer, Ad Hoc Reviewer, USDA-SBIR.

Reviewer, Ad Hoc Reviewer, USDA-SBIR.

Reviewer, Ad Hoc Reviewer, USDA-Small Business Initiative.

Reviewer, Ad Hoc Reviewer, USDA-Small Business Innovation Research.

Western Sydney University Dissertation.

Reviewer, Journal Article, HortTechnology. (October 15, 2013 - Present).

Reviewer, Journal Article, Journal of Plant Physiology. (September 18, 2013 - Present).

Reviewer, Journal Article, Tree Physiology. (July 14, 2013 - Present).

Reviewer, Journal Article, Journal of Geophysical Research – Biogeosciences. (May 1, 2013 - Present).

Reviewer, Journal Article, Global Change Biology. (March 13, 2013 - Present).

Reviewer, Journal Article, HortScience. (February 21, 2013 - Present).

Reviewer, Grant Proposal, USDA - SBIR. (January 31, 2013 - Present).

Reviewer, Journal Article, HortScience. (January 15, 2013 - Present).

Reviewer, Journal Article, Journal of Geophysical Research – Biogeosciences. (January 1, 2013 - Present).

Reviewer, Ad Hoc Reviewer, Tree Physiology. (June 1, 2014 - July 1, 2014).

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

Centennial Water and Sanitation.
