

Sven Verlinden

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Employment History

2018-present Interim Director, Division of Plant and Soil Sciences, West Virginia University

- Direct research, teaching and service functions and agendas of the Division of Plant and Soil Sciences
- Manage financials and personnel in PSS
- Serve as liaison between PSS and Davis College administration
- Set goals and objectives, guide the development and implementation of the mission and vision of the Division of Plant and Soil Sciences

2014-present Assistant Director of Academic Affairs, Division of Plant and Soil Sciences, West Virginia University

- Oversee Course and Curriculum Development
- Guide Assessment of Programs and Majors
- Spearhead Recruiting and Retention for the Division of PSS majors

2005-present Associate Professor of Horticulture, Division of Plant and Soil Sciences, West Virginia University

- Teach six (6) undergraduate and one (1) graduate level course(s)
- Supervise internships, undergraduate research, and independent studies
- Advise undergraduate and graduate students
- Maintain an extramurally funded research program
- Participate in various outreach activities (consulted both for both non-profit and for-profit companies)

2005-2008 Resident Faculty Leader (Lincoln Hall), Student Affairs, West Virginia University

- Academic programming – Freshman Seminars
- Social activities
- Study Abroad Experience
- On site – living with 325+ freshman students

1999-2005 Assistant Professor of Horticulture/Genetics and Developmental Biology, Division of Plant and Soil Sciences, West Virginia University

- Taught three (3) undergraduate and one (1) graduate level course(s)
- Developed and maintained an extramurally funded research program
- Advised graduate students

Education and Professional Development

2006-2007 Lead21, Leadership Development Program for Land-Grant Universities
1994-1999 Ph.D. in Horticulture, Molecular Biology of Flower Senescence, Purdue University
1991-1994 Bachelor of Science in Horticulture, Michigan State University

Publications (Peer-reviewed)

Verlinden, S. 2019. Microgreens: Definitions, Product Types, and Production Practices. Horticultural Reviews. Wiley-Blackwell. (book chapter – submitted)

Brumfield, R., Kenny, L., DeVincentis, A., Koeser, A., **Verlinden, S.**, Bi, G., Lovell, S., Stewart, R. 2018. Analysis of Economic and Social Costs of Growing *Petunia x hybrida* in a Greenhouse Production System Using Alternative Containers. HortScience 53(8):1179-1185

Verlinden, S., McDonald, L., Kotcon, J., Childs, S., Childers, T. 2017. Long-term Effect of Manure Application in a Certified Organic Production System on Soil Physical and Chemical Parameters and Vegetable Yields. HortTechnology 27:171-176

Conneway, R., **Verlinden, S.**, Koeser A.K., Evans, M., Schnelle, R. Anderson, V., Stewart, J.R. 2015. Use of Alternative Containers for Long- and Short-Term Greenhouse Crop Production. HortTechnology 25:26-34

Niu, G., Sun, Y., Koeser, A., Bi, G., Anderson V., Jacobson, K., Conneway, R., **Verlinden, S.** 2015. Impact of Biocontainers on Plant Performance and Container Decomposition in the Landscape. HortTechnology 25:63-70

Verlinden, S., Silva, S.M., Herner, R.C., Beaudry, R. M. 2014. Time-Dependent Changes in the Longitudinal Sugar and Respiratory Profiles of Asparagus Spears During Storage at 0 °C. J. Am. Soc. Hort. Sci. 139:339-348

S. Nambuthiri, R. Geneve, T. Fernandez, A. Fulcher, A. Koeser, G. Bi, M. Evans, G. Niu, N. Pershey, R. Stewart, S. Verlinden, and X. Wang. 2012. Substrate Heat Buildup And Evaporation Rate Differs Between Plastic and Alternative One Gallon Nursery Containers. 2012 Southern Nursery Association Research Conference. (refereed Proceedings article)

Fulcher, G. Niu, G. Bi, M. Evans, T. Fernandez, R. Geneve, A. Koeser, S. Nambuthiri, N. Pershey R. Stewart, **S. Verlinden**, and X. Wang. 2012. Assessing Biocontainers and a Sustainable Irrigation Regime for the US Nursery Industry. Southern Nursery Association Research Conference. (refereed Proceedings article)

Gomez-Melendez, D., Lopez-lambrano, A., Herrera-Ruiz, G. Fuentes, C., Rico-Garcia, E., Olvera-Olvera, C., Alaniz-Lumbrerasc, D., Mercado Fernandez, T., **Verlinden S.** 2011. Fuzzy Irrigation Greenhouse Control System Based on a Field Programmable Gate Array. African Journal of Agricultural Research 6(11): 2544-2557

Bumgarner, NR, **Verlinden S.** 2010. Temperature and Yield Effects of Water Inclusion in Season Extension Systems for Warm and Cool Season Vegetable Crops. J. Applied Hort. 12(2):1-7

Iordachescu, M, Bowman, H, Sasaki, K, Imai, R, Satoh, **Verlinden, S.** 2009. Subcellular Localization and Changes in mRNA Abundance of CEBP, a Nuclear-Encoded Chloroplast Protein, During Flower Development and Senescence. *J. Plant Biol.* 52:365-373.

Alshahrani, TS, Hicks, RR, **Verlinden S,** and Siedel, GE. 2009. Effects of Leaf Extracts of *Zizyphus spinachristi* and *Prosopis juliflora* on each other's seedling roots. *Allelopathy Journal* 23(1) 111-118

Verlinden, S., McDonald, L. 2007. Organic and Inorganic Mineral Nutrition of Statice (*Limonium sinuatum* cv. Soiree Mix) and Cockscomb (*Celosia argentea* cv. Chief Mix). *Scientia Horticulturae* 14 (3):199-206

Verlinden S. 2006. Flower Senescence. In "The Molecular Biology and Biotechnology of Flowering". Ed. Jordan, B. CABI publishing, Cambridge, MA. pp. 404

Iordachescu, M., **Verlinden, S.** 2005. Transcriptional Regulation of three EIN3-like genes of carnation (*Dianthus caryophyllus* L. cv. Improved White Sim) during flower development and upon wounding, pollination, and ethylene exposure. *J. Exp. Bot* 2011-2018

Verlinden, S., Vicente Garcia, J.J. 2004. Sucrose Loading Decreases Ethylene Responsiveness in Carnation (*Dianthus caryophyllus* cv. White Sim) Petals. *Postharvest Biology and Technology* 31(3):305-312.

Verlinden, S. 2003. Changes in Essential Elements during Petunia Development and Senescence. *HortScience* 38(1): 71-74.

Verlinden, S., Boatright, J., Woodson, W.R. 2002. Changes in Ethylene Responsiveness of Senescence-Related Gene mRNA Accumulation during Carnation Petal Development. *Physiol. Plant.* 116:503-511.

Verlinden, S., Iordaschescu, M. 2002. Cloning and Characterization of three EIN3-like cDNAs from carnation. NATO Advanced Research Workshop. Biology and Biotechnology of the Plant Hormone Ethylene III. 349:60-61

Joly, R.J., Jones, M.L., **Verlinden, S.,** Rhodes, D., Woodson, W.R. 2000. Learning in an Inquiry-Driven Plant Physiology Laboratory. *J. Nat. Resour. Life Sci. Educ.* 29:31-35

Verlinden, S., Woodson, W.R. 1998. The Physiological and Molecular Responses of Carnation Flowers to High Temperature. *Postharvest Biology and Technology* 14:185-192

Non-Refereed Articles (past five years)

Nambuthiri,S., A. Fulcher, R. Geneve, G. Niu, C. Cochran, **S. Verlinden,** R. Conneway. 2015. Alternative containers for the green industry. *South Carolina Nurseryman* May/June :14-15 (not refereed).

Nambuthiri, S., A. Fulcher, R. Geneve, G. Niu, C. Cochran, **S. Verlinden,** R. Conneway. 2015. Pick your pot. *Nursery Management* 31:10-14 (not refereed).

Fulcher A., **Verlinden, S.** et al., 2013. Pulp or Plastic. *American Nurseryman.* February 2013, pp. 20-28 (trade magazine – not refereed)

Abstracts, Posters, Presentations (past five years)

Verlinden, S. 2016. The WVU Organic Farm: 15 years of Research and Education. Invited presentation Cornell, September 19, 2016 (oral presentation)

Masters, J., Pena-Yewtukhiw, E., Waterland, N. **Verlinden, S.** 2015. Morphological Stages of Seedling Development in Mustard Microgreens. HortScience. ASHS New Orleans (abstract – poster).

Griffith, H., Caswell, C., Geise, A., **Verlinden, S.** 2015. The Effects of Alternative Media and Deficit Irrigation on Organic Vegetable Transplant Production. HortScience. ASHS New Orleans (abstract – poster)

Verlinden, S. 2015. Effect of Long Term Compost Application in a Certified Organic System on Soil Quality and Vegetable Yields. HortScience. ASHS New Orleans (workshop – oral presentation)

Verlinden, S. 2015. Water Balance in Plants. Invited Seminar. University of Zacatecas, Mexico. October 10-14, 2015

Niu, G., Sun, Y., Bi, G., Koeser, A., Jacobsen, K., Anderson, V., **Verlinden, S.** Conneway, R. 2014. Impact of Biocontainers on Plant Performance and Container Decomposition in the Landscape. Annual ASHS Conference. Orlando, Florida (abstract - poster)

X. Wang, R.T. Fernandez, G. Bi, A. Fulcher, R. Geneve, G. Niu, **S. Verlinden**, B. Cregg, M. Ngouajio, T. Kijchavengkul, R. Auras, S. Nambuthiri and R. Conneway. 2013. Plant Growth and Water Use in Plastic, Keratin, and Root Pouch Containers. ASHS Annual Conference Desert Springs July 2013

Garton, W. **Verlinden S.** 2013. Waste Wool, Cocoa Hulls, and Clover as Organic Mulch Alternatives in Tomato Production ASHS Annual Conference Desert Springs July 2013

Verlinden, S. 2012. Greenhouse Construction and Management. Small Farms Conference, February 28-March 2, 2012, Morgantown (oral presentation)

Verlinden, S. 2012. Holly Production. Christmas Tree Growers Association Winter Meeting, February 26, 2012 (oral presentation)

Conneway, R., **Verlinden, S.** 2012. Use of Biocontainers for Short- and Long-term Greenhouse Production. Annual Conference of the American Society for Horticultural Science. July 31- August 3, Miami, Florida (abstract – poster)

Niu, G., **Verlinden, S.**, Conneway, R., Stewart, R. 2012. Impact of Biopots on Plant Performance and Pot Degradation in Landscapes. Annual Conference of the American Society for Horticultural Science. July 31- August 3, Miami, Florida (abstract – poster)

Wang, X., **Verlinden, S.**, Conneway, R. 2012. Performance of Alternative Containers and Plant Growth and Water Use of *Euonymus fortunei*. Annual Conference of the American Society for Horticultural Science. July 31- August 3, Miami, Florida (abstract – poster)

Grants (past five years)

Competitive (External)

USDA - NRCS (co-PI) 2017-2019 Comprehensive strategy for maximizing high tunnel efficiency and profit for growers in West Virginia (\$232,415)

USDA – SCRI (co-PI) 2011-2015 Impact and Social Acceptance/Ornamental Production Systems (\$128,214)

Morgan-Tangson (co-PI)2015-2016 Season Extension (\$50,000)

WVNLA (PI) 2010-2013 Sustainability in the Nursery Industry (\$15,000)

Competitive (Internal)

WVU Libraries 2012-2013 Information Literacy (\$3,000)

Marsh-Dye Fellowship 2012-2013 Measuring root biomass (\$4,750)

SURE program 2012 Undergraduate Research (2 students) (\$2,800)

Non-competitive

USDA - Hatch (PI) 2017-2022 Long Term Organic Management and Its Effects on Soils, Yield, Weed Pressure, Pest Management, and Economics

USDA - Hatch (PI) 2011-2016 Changes in Ethylene Responsiveness – Clues to the Master Switch

Teaching

PLSC 105 Plants and People: Past and Present (every Fall) 2004-present
(lecture and online version, 3 credits)

PLSC 444 Western Europe Landscapes 2002, 2006-present
(study abroad, every Summer, 3-6 credits)

HORT 262 Herbaceous Plant Materials (every even Fall, 3 credits) 1999-present

HORT 441 Garden Center Management (every even Spring, 3 credits) 1999-present

HORT 444 Storage and Handling of Horticultural Crops 1999-present
(every odd Fall, 3 credits)

HORT 445 Greenhouse Management (every Spring, 3 credits) 1999-present

HORT 491 Professional Field Experience 1999-present
(every Summer, spring, 1-4 credits, undergraduate coordinator)

HORT 495 Independent Studies (3-12 students per semester) 1999-present

HORT 496 Senior thesis (1 student) 2015

- Miscellaneous teaching (guest lectures 3-5 per year; HORT 220 – 2003; PLSC 493 -2006; HNRS 293 (Assigned Readings) 2014-2015)
- SEIs available on request

Service (past 5 years)

- National
 - ASHS (Member, Chair-Elect, Chair Organic working Group) (2014-2016)
 - Grant review
 - 2016 USDA-NIFA (American Indian and Alaska Native Serving Institutions)
 - 2012-2013 USDA-NIFA (Hispanic Serving Institutions)
 - 2013 USDA NE-SARE (Graduate Student Grants)
 - 2013 USDA NE-SARE (Research and Education Grant Program)
 - Peer Review of Articles
 - HortScience
 - HortTechnology
 - Scientia Hort.
 - Journal of Experimental Botany
 - Biological Agriculture and Horticulture
 - AoB Plants
 - Plant Cell, Tissue and Organ Culture
- University
 - WVU Undergraduate Council (2014-present)
 - Safe Zone Training (2015)
 - Faculty Senate (2006-2008)
 - GEO Grant committee (2011-2014)
- Davis College
 - Davis College Farm Advisory Council (2015-present)
 - Davis College Undergraduate Council (2015-present)
- Division of Plant and Soil Sciences
 - Assistant Director of Academic Affairs (2014-present)
 - New Student Orientation
 - Recruiting, Retention, Graduation
 - Assessment
 - Curriculum and Course Development
 - Participation in Commencement
 - Scholarship Awards
 - First Year Academy
 - Faculty Advisor of POP (People for Organic Practices) student club (2015-present)
 - Faculty Advisor of the WVU Horticulture Club (1999-present)
 - Greenhouse Steering committee (2005-present)
 - Organic Farm Steering Committee – Organic Farm Field Day (1999-present)

- Organic Farm Internship Coordinator (2015-present)
- Horticulture Undergraduate Advising (25-40 students per semester) (2006-present)
- FFA Floriculture Career Development Event (1999-present)
- Community
 - Board member of PACE Enterprises (2015-present)
 - Board member of The 17 Club, an organization providing a clean and safe environment for 12-step groups to meet (2013-present)
 - West Virginia Botanic Garden board member (2015)
 - Expert opinion
 - Value of tree removal (Mark Gaydos, Esq.)
 - Herbicide damage in the landscape (Samuel Stone, Esq.)

Professional Memberships

1995-present American Society for Horticultural Sciences (national)/NE-ASHS (regional)

1999-present West Virginia University Nursery and Landscape Association

1999-present International Society for Horticultural Sciences