

ERIN M. SILVA

Assistant Professor, Organic and Sustainable Cropping Systems
Department of Plant Pathology, University of Wisconsin – Madison
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Professional Preparation

Ph.D., Horticulture, 2002, Washington State University, Pullman, WA

Area of Specialization: Vegetable Physiology

M.S., Horticulture, 1998, Washington State University, Pullman, WA

Area of Specialization: Vegetable Physiology

B.S., Biology, 1996, University of Wisconsin, Stevens Point, WI

Area of Specialization: Plant Biology

Appointments

Assistant Professor and State Extension Specialist, Organic and Sustainable Production Systems (2014-present), Department of Plant Pathology, University of Wisconsin-Madison, Madison, WI

Organic Agriculture Specialist (2006-2014), Department of Agronomy, University of Wisconsin-Madison, Madison, WI

Assistant Professor, Vegetable Physiology (2003-2006), Department of Agronomy and Horticulture, New Mexico State University, Las Cruces, NM

Postdoctoral Research Associate (2002-2003), USDA-ARS Vegetable Crops Research Unit, University of Wisconsin-Madison, Madison, WI

Synergistic Activities

My research program in organic agriculture focuses on the development and evaluation of management practices and systems that foster soil health, crop quality and environmental stewardship. Key areas of research include the development of minimal tillage and cover cropping practices for organic production, the development of crop varieties specifically adapted to organic production, the creation of farm management tools for organic grain and vegetable producers. In addition, I am the State Extension Specialist in Organic Agriculture, leading the Organic Grain Resource and Information Network (OGRAIN). Within the OGRAIN program, I organize and host a winter organic grain conference drawing 200+ participants, 6 annual summer field days, and written and online-based resources, including YouTube videos that have been accessed with over half-million views. Other synergistic activities include: Scientific Advisory Committee Member, The Organic Center (2013 – present); and Member, Wisconsin Organic Advisory Council (2007-present).

Publications

Journals, refereed

Lyon, A.H., W.F. Tracy, J. Zystro, and **E.M. Silva**. 2019. Using adaptability analysis in a participatory variety trial of organic vegetable crops. *Renewable Agriculture and Food Systems*. Firstview 1-17.

- Silva, E.M.**, J. Klink, E. McKinney, J. Price, P. Deming, H. Rivedal, and J. Colquhoun. 2019. Attitudes of university campus dining customers towards sustainability-related food values. *Renewable Agriculture and Food Systems*. Firstview 1-6.
- Silva, E.M.** and L. Vereecke. 2019. Optimizing organic cover crop-based rotational tillage systems for early soybean growth. *Organic Agriculture*. Firstview 1-11.
- Silva, E. M.** and M. Tchamitchian. 2018. Long-term systems experiments and long-term agricultural research sites as tools in agroecological research and design. *Agroecology and Sustainable Food Systems*. 42:1-9.
- Weil, R., **E.M. Silva**, J. Hendrickson, and P.D. Mitchell. 2017. Time and technique studies for assessing labor productivity on diversified organic vegetable farms. *Journal of Agriculture, Food Systems, and Community Development*. 7:129-148.
- Silva, E.M.** and K. Delate. 2017. A decade of progress in organic cover crop-based reduced tillage practices in the Upper Midwestern USA. *Agriculture*. 7:44.
- Vincent-Caboud, L., J. Peigné, M. Casagrande, and **E.M. Silva**. 2017. Overview of organic cover crop – based no tillage technique in Europe: Farmers’ practices and research challenges. *Agriculture*. 7:42.
- Liang, D., F. Sun, M. Wattiaux, V. Cabrera, J. Hedtcke, and **E.M. Silva**. 2017. Effect of feeding strategies and cropping systems on greenhouse gases emission from Wisconsin certified organic dairy farms. *Journal of Dairy Science*. 7:5957-5973.
- Silva, E.M.** and V.M. Moore. 2017. Cover Crops as an Agroecological Practice on Organic Vegetable Farms in Wisconsin, USA. *Sustainability*. 9:55-70.
- Silva, E.M.**, J. Hendrickson, P.D. Mitchell, and E. Bietila. 2016. From the Field: A Participatory Approach to Assess Labor Inputs on Organic Diversified Vegetable Farms in the Upper Midwestern United States. *Renewable Agriculture and Food Systems*. Firstview 1-6.
- Moore, V.M., P.D. Mitchell, and **E.M. Silva**. 2016. Cover Crop Adoption and Intensity on Wisconsin’s Organic Vegetable Farms. *Agroecology and Sustainable Food Systems*. 40:693-713.
- Bietila, E., **E.M Silva**, A. Pfeiffer, and J. Colquhoun. 2016. Cover Crop-based No-Till Production Impacts Potato, Bell Pepper, and Snap Bean Production in Wisconsin. *Renewable Agriculture and Food Systems*. 32:349-357.
- West, J.R., M.D. Ruark, A.J. Bussan, J.B. Colquhoun, and **E.M. Silva**. 2016. Organic nutrient and weed management on loamy sand soil under sweet corn production. *Agronomy Journal*. 108:758-769. doi:10.2134/agronj2015.0393
- Pfeiffer, A.C., **E.M. Silva**, and J. Colquhoun. 2015. Living Mulch Cover Crops on Small Parcels for Weed Control in Urban and Small-Scale Applications. *Renewable Agriculture and Food Systems*. 31:309-317.
- Lyon, A., **E.M. Silva**, M. Bell, and J. Zystro. 2015. Seed and Plant Breeding for Wisconsin’s Organic Vegetable Sector: Understanding Farmers’ Needs and Practices. *Agroecology and Sustainable Food Systems*. 39:601-624.
- Silva, E.M.**, R. Claypool, J. Munsch, J. Hendrickson, P. Mitchell, and J. Mills. 2014. Veggie Compass: A spreadsheet-based tool to calculate cost-of-production for diversified organic vegetable farmers. *HortTechnology* 24:394-402.
- Silva, E.M.** 2014. Management of five fall-sown cover crops for organic no-till production in the Upper Midwest. *Agroecology and Sustainable Food Systems*. 38:748-763.
- Silva, E.M.**, F. Dong, P.D. Mitchell, and J. Hendrickson. 2014. Impact of marketing channels on perceptions of quality of life and profitability of Wisconsin’s organic vegetable farmers.

- Renewable Agriculture and Food Systems. 30:428-438.
- Pfeiffer, A., **E. Silva**, and J. Colquhoun. 2014. Innovation in urban agricultural practices: responding to diverse production environments. *Renewable Agriculture and Food Systems*. 29:1-14.
- Silva, E.M.** and G. Muller. 2013. Creating a Collaborative, Hands-on Program to Teach High School Students Organic Farming, *HortTechnology* 23:376-381.
- Bruner, L., D.J. Eakes, G.J. Keever, J.W. Baier, C. Stuart Whitman, P.R. Knight, J.E. Altland, and **E.M. Silva**. 2008. Butterfly Feeding Preferences of *Lantana camara* Cultivars and *Lantana montevidensis* 'Weeping Lavender' in the Landscape and Nectar Characteristics. *Journal of Environmental Horticulture* 26(1):9-18.
- Falk, C., **E. Silva**, and P. Pao. 2006. From the Classroom to the Community: An Integrated Method for Research and Teaching of Organic Production. *Revista Mexicana de Agronegocios*. 19:1-16. In English and Spanish.
- Silva, E.M.**, B. B. Dean, and L. K. Hiller. 2004. Patterns of floral nectar production of onion (*Allium cepa* L.) and the effects of environmental conditions. *J. Am. Soc. Hort. Sci.* 129: 299-302.
- Silva, E.M.**, B. B. Dean, and L.K. Hiller. 2003. Honey bee (Hymenoptera: Apidae) foraging in response to pre-conditioning with onion flower scent compounds. *J. Econ. Entomol.* 96(5): 1510-1513.
- Silva, E.M.** and B. B. Dean. 2000. The effect of nectar composition and nectar concentration on honey bee (Hymenoptera: Apidae) visitations to hybrid onion flowers. *J. Econ. Entomol.* 93(4): 1216-1221.

Books and Book Chapters

- Wezel, A. and **E.M. Silva**. 2017. Agroecology and agroecological cropping practices In: Wezel, A. (ed.) *Agroecological practices for Sustainable Agriculture: Principles, Applications, and Making the Transition*. Springer Press.
- Silva, E.M.** and A.C. Pfeiffer. 2016. An Agroecological Perspective on Urban Farming. In: Julie Dawson and Alfonso Morales (eds.). *Cities of Farmers: Problems, Possibilities and Processes of Producing Food in Cities*. University of Iowa Press, Iowa City, IA.
- Daniels, W., A. Diffley, D. Fiser; D. Hollbach, J. Jewett, A. Korane; J. Koan, L. Halley, P. Thelen, S. Plimpton, **E. Silva**, and J. Slama. 2013. *Wholesale Success: A Farmer's Guide to Food Safety, Selling, Postharvest Handling, and Packing Produce*, 3rd Edition. J. Slama and A. Diffley, eds. FamilyFarmed.org, Oak park, IL.
- Silva, E.M.** 2012. Organic Agriculture as an Alternative to a Genetically –Engineered Based System. In: Jennie Popp, Marty Matlock, Nathan Kemper, and Molly Jahn (eds.). *The Role of Biotechnology in a Sustainable Food Supply*. Cambridge University Press, Cambridge, UK.
- Diffley, A, D. Fiser, A. Korane, J. Koan, L. Halley, P. Thelen, S. Plimpton, **E. Silva**, and J. Slama. 2008. *Wholesale Success: A Farmer's Guide to Selling, Postharvest Handling and Packing Produce*, 1st Edition. FamilyFarmed.org, Oak park, IL.
- Silva, E. M.** and P.W. Simon. 2005. Genetic, Physiological, and Environmental Factors Affecting Acrylamide Production in Fried Potato Products, p371-386. In: Mendel Friedman and Don Mottram (eds.). *Chemistry and Safety of Acrylamide in Food*, *Advances in Experimental Medicine and Biology*. Springer Science, NY.

Other Publications

- Bauer, L, C. Carusi, A. Gurda, and **E.M. Silva**. 2017. Organic Agriculture in Wisconsin: 2017 Status Report. <https://www.cias.wisc.edu/wp-content/uploads/2017/02/organicreport2017web2final.pdf>
- Carusi, C.E., A. Gurda, R. McNair, A. Pfeiffer, and **E.M. Silva**. 2015. Organic Agriculture in Wisconsin: 2011 Status Report. Available online at <http://www.cias.wisc.edu/wp-content/uploads/2015/02/ciasorganicreport2015final041615.pdf>.
- Silva, E.M.**, L. Bauer, and L. Paine. 2014. Organic Agriculture in Wisconsin: 2014 UW-Madison Research Report. Available online at <http://www.cias.wisc.edu/wp-content/uploads/2014/02/organicreportt021014finalnewlowres.pdf>.
- Silva, E.M.**, L. Paine, L. Bauer, C. Carusi, and R. McNair. 2012. Organic Agriculture in Wisconsin: 2011 Status Report. Available online at <http://www.cias.wisc.edu/crops-and-livestock/organic-agriculture-in-wisconsin-2012-status-report/>
- Blazek, K., **E.M. Silva**, L. Paine and T. Atwell. 2010. Organic Agriculture in Wisconsin: 2011 Status Report. Available online at <http://www.cias.wisc.edu/crops-and-livestock/organic-agriculture-in-wisconsin-2009-status-report/>.
- Delahaut, K., **E.M. Silva**, and H. Behar. 2007. Becoming a Certified Organic Producer. CIAS Publication. Available online at <http://www.cias.wisc.edu/economics/becoming-a-certified-organic-producer>.
- Kriegl, T., L. Paine, L. Bauer, C. Carusi, R. McNair, and **E. Silva**. 2008. Organic Agriculture in Wisconsin: 2007 Status Report. Available online at <http://www.cias.wisc.edu/pdf/organic07.pdf>.