

Lynne Carpenter-Boggs, Ph.D.
Curriculum Vitae, June 2017
(509) 335-1553 lcboggs@wsu.edu

Appointment

Associate Professor / Associate Scientist, Sustainable and Organic Agriculture,
Department of Crop and Soil Sciences, Washington State University.

Faculty Specialization

Sustainable and Organic Agriculture: Primary project areas include biological soil fertility, biologically intensive and organic farming systems, plant-microbial symbioses, composting and organic soil amendments, and farming system life cycle analysis.

Degrees Earned

- 1997 ♦ **Ph.D.** Soil Science (Soil Microbiology and Agroecology), Washington State University, Pullman WA.
- 1994 ♦ **M.S.** Soil Science (Soil Microbiology and Biochemistry), Iowa State University, Ames IA.
- 1991 ♦ **B.S.** Magna Cum Laude, Biophysical Environmental Studies, Northland College, Ashland WI.

Academic and Research Positions

- 2016-present Associate Professor, Sustainable and Organic Agriculture, Dept. Crop and Soil Sciences, Washington State University. 75% Research, 25% Teaching.
- 2012-present Associate Professor, Sustainable and Organic Agriculture, Dept. Crop and Soil Sciences, Washington State University. 50% Research, 30% Teaching, 20% Administration for development of Eggert Family Organic Farm. Promoted to Associate level in 2012, tenured 2015.
- 2009-2012 BIOAg Research Leader, Center for Sustaining Agriculture and Natural Resources (CSANR), and affiliate Assistant Professor, Dept. Crop and Soil Sciences, Washington State University. Provide leadership in research for biologically-intensive and organic agriculture.
- 2006-2009 BIOAg Coordinator, Center for Sustaining Agriculture and Natural Resources (CSANR), Washington State University. Administer BIOAg

mini-grant program and coordinate development of research and outreach for biologically-intensive and organic agriculture.

- 2004-2006 Instructor and Research Associate, Dept. Crop and Soil Sciences, Washington State University. Teach courses Soil Fertility, Composting, Plant-Soil-Microbial Interactions, Advanced Cropping Systems, and Organic Gardening and Farming. Conduct and supervise research in soil microbiology, compost science, and beneficial plant-microbial interactions.
- 2003 Instructor, Dept. Crop and Soil Sciences, Washington State University. Teach course, Soil: A Living System (Introduction to Soil Science).
- 2000-2004 Assistant Scientist, Department of Plant Pathology, Washington State University. Phylogenetic analysis of *Tilletia spp.*, and *Alternaria spp.*; assess pathogenicity and alternate host range of *Ascochyta rabei* and related spp.
- 1997-2000 Soil Microbiologist, GS-0403-11, USDA-ARS, Morris, MN. Research biological soil quality parameters, microbial communities, nutrient availability, and soil organic matter pools as affected by agricultural management; decomposition and management of farm wastes; sustainable and organic agricultural management.
- 1996 Instructor, Dept. Crop and Soil Sciences, Washington State University. Teach course, Soil Microbial Ecology.
- 1992-1996 National Science Foundation Fellow, Iowa State University and Washington State University. Research axenic culture of mycorrhizal fungi; soil and compost microbial communities as affected by microbial inoculants.

Grants Received

- **Total \$6,769,757; \$1,806,218 added since 2011**
- **As lead PI \$3,695,551; \$1,015,342 added since 2011**
- **Under LCB direction approx. \$3,313,000; \$1,239,000 added since 2011**

Numbers indicate contributions to these areas:

- 1) Provided the initial idea
- 2) Developed research design and hypotheses
- 3) Authorship of grant application
- 4) Developed and/or managed budget
- 5) Managed personnel and project activities

Carpenter-Boggs, L. (P.I.) Sustainable Biological and Foliar Fertilization on Crops in Eastern African Phosphorus-Retaining Soils. Fulbright U.S. Scholar Program. \$42,000. 1/18 – 5/18. **(1, 2, 3, 4, 5, \$42,000)**.

Michel, L., **L. Carpenter-Boggs (Co-P.I.)**, H. Tao, K. Johnson, T. Hudson. Sustainable Crop-Livestock Integration for the System Health in the Dryland Inland Pacific Northwest. Western SARE. \$49,722. 5/17 – 4/19. **(2, 3, 4, 5, \$10,000)**.

Tao, H., **L. Carpenter-Boggs (Co-P.I.)**, K. Johnson, I. Burke, T. Sullivan, T. Hudson, S. Hulbert, L. Michel. Sustainable Crop-Livestock Integration for System Health in the Dryland Inland Pacific Northwest. WSU BIOAg. \$39,966. 7/17 – 12/18. **(2, 3, 4, 5, \$30,000)**.

Carpenter-Boggs, L. (P.I.), and F. Aljaafar. Life Cycle Assessment and Biofuel for Sustainable Agriculture. Saudi Arabian- American Scholarship Program. \$90,000. 1/17 – 5/19. **(1, 2, 5, \$90,000)**.

Carpenter-Boggs, L. (P.I.), and A. Aldarmon. Designing Biochar for Water Holding in Arid Soils. Libyan-North American Scholarship Program. \$140,000. 5/16 – 5/20. **(1, 2, 5, \$140,000)**.

Carpenter-Boggs, L. (P.I.), and A. Almesmari. Promoting the Sustainability of Crop Production: Fertilization with Compost Tea. Libyan-North American Scholarship Program. \$140,000. 5/16 – 5/20. **(1, 2, 5, \$140,000)**.

Carpenter-Boggs, L. (P.I.) Research Gift: Urban Death Project. \$10,000. 4/16. **(1, 2, 5, \$10,000)**.

Carpenter-Boggs, L. (P.I.) Research Gift: Midwestern BIOAg. \$13,000. 1/16. **(1, 2, 5, \$13,000)**.

Hudson, T., **L. Carpenter-Boggs (Co-P.I.)**. Soil Health and Pasture Productivity under Mob Grazing and Fertility Management. WSU BIOAg. \$31,287. 7/15 – 12/16. **(1, 2, 3, 4, 5, \$25,000)**.

Piaskowski, J., **L. Carpenter-Boggs (P.I.)**, G. Vandemark. The Search for Acid-tolerant Rhizobia to Improve Pulse Production. WSU BIOAg. \$38,557. 7/15 – 12/16. **(1, 2, 3, 4, 5, \$38,587)**.

Carpenter-Boggs, L. (P.I.), C. Adewale, J. Reganold. Optimizing cover crop and intercrop N management. Agronomic Science Foundation. \$59,400. 1/15 – 12/17. **(1, 2, 3, 4, 5, \$59,400)**.

Carpenter-Boggs, L. (P.I.), C. Adewale. Climate Sustaining Agriculture: Carbon Footprints-of Organic and Conventional Onions and Wheat. Western SARE. \$24,980. 1/15 – 12/16. **(1, 2, 3, 4, 5, \$24,980)**.

Reganold, J., **L. Carpenter-Boggs (Co-P.I.)**, R. Wieme, C. Benedict, D. Crowder, K. Murphy, K. Painter, S. Van Vleet. Introducing Organic Quinoa Production Systems in the Palouse. WSU Emerging Research Issues. \$75,800. 1/14 -6/16. **(2, 3, 4, 5, \$30,000)**.

Carpenter-Boggs, L. (P.I.), B. Weddell. Spring to Action, Break for Change: Civic Engagement in Sustainable Agriculture and Food Systems. Foundation for Sustainability and Innovation. \$1,000. 1/14 – 12/14. **(1, 2, 3, 4, 5, \$1,000)**.

Carpenter-Boggs, L. (P.I.) Borlaug Higher Education Agricultural Research and Development Program. USAID. \$230,552. 8/13 – 8/14. **(1, 2, 4, 5, \$230,552)**.

Carpenter-Boggs, L. (P.I.), M. Lege. Effective Distribution Channels for Bean Seed and Rhizobial Inoculants. Borlaug Graduate Research Program, USAID. \$19,985. 8/13 – 8/14. **(1, 2, 3, 4, 5, \$19,985)**.

Carpenter-Boggs, L. (P.I.) Course Development and Delivery Ready Assistantship to Improve Outcomes and Enrollment in Organic Agriculture Programs. WSU CAHNRS Academic Programs. Approx. \$56,000. 8/13-8/15. **(1, 2, 3, 4, 5, \$56,000)**.

Reganold, J., **L. Carpenter-Boggs (Co-P.I.)**, K. Johnson, E. Zakarison, K. Painter. Role of Mixed Crop-Livestock Systems in Transitioning to Dryland Organic Farming in the Pacific NorthWest. USDA Integrated Research, Education, and Extension Competitive Grants Program—Organic Transitions. \$695,078. 9/12 – 8/15. **(1, 2, 3, 4, 5, \$200,000)**.

Roje, S., **L. Carpenter-Boggs (Co-P.I.)**, R. McGee, C. Coyne, M. Islam, J. Harsh, D. Main. Lentil Selection and Management to Reduce Dietary Intake of Arsenic. WSU BIOAg. \$20,000. 4/12 – 3/13. **(1, 2, 3, 4, 5, \$20,000)**.

Carpenter-Boggs, L. (P.I.), J. Piaskowski, K. Garland-Campbell, K. Painter, I. Burke, S. Machado, D. Roberts. Dryland Organic Agriculture: Challenges and Opportunities. USDA Organic Research and Extension Initiative Conference Grant. \$28,891. 9/11 – 8/12. **(1, 2, 3, 4, 5, \$28,891)**.

Carpenter-Boggs, L. (P.I.) Farming for Wildlife: Nutrient Banking in Wetland Rotations. The Nature Conservancy of Washington. \$33,985. 6/10 – 12/12. **(2, 3, 4, 5, \$33,985)**.

Carpenter-Boggs, L. (P.I.), C. Stockle, J.L. Smith, D. Huggins, S. Higgins, D. Granatstein, S. Verhey, U. Zaher. Carbon Sequestration, Nutrient Bioavailability, and Environmental Services from Organic Agriculture. USDA Organic Research and Extension Initiative, \$1,538,115. 9/10 – 8/14. **(1, 2, 3, 4, 5, \$900,000)**.

Westgate, M., P. Miklas, **L. Carpenter-Boggs (Co-P.I.)**, K. Cichy, J. Kelly, M. Ugen, S. Msolla-Nchimbi, S. Tenywa, A. Musoni. Enhancing biological nitrogen fixation of

leguminous crops grown on degraded soils in Uganda, Rwanda and Tanzania. USAID, \$999,920. 5/10 – 9/12. **(2, 3, 4, 5, \$144,907).**

Carpenter-Boggs, L. (P.I.), G. Vandemark. Increasing Biological Nitrogen Fixation in Lentils through Breeding and Rhizobium Strain Selection. Cool Season Food Legumes USDA Special Grant. \$45,000. 9/10 – 6/12. **(1, 2, 3, 4, 5, \$45,000).**

Nelson, D., **L. Carpenter-Boggs (Co-P.I.),** S. Nieburgs, S. VanVleet. Sustainable Alternatives to the Conservation Reserve Program (CRP). USDA Western Sustainable Agriculture Research and Education. \$50,000. 6/10 – 5/13. **(2, 3, 4, 5, \$8,000).**

McGuire, A., **L. Carpenter-Boggs (Co-P.I.),** D. Johnson, D. Horneck, P. Hamm. Sustainable Disease Control to Reduce Cost and Risk in Potato Production. Washington Department of Agriculture Specialty Crops Block Grant. \$249,920. 9/09 – 8/12. **(2, 3, 4, 5, \$90,000).**

Carpenter-Boggs, L. (P.I.), G. Chastagner, H. Saez. Control of Fusarium Root Rot in Douglas-fir Seedling Nurseries through Monitoring and Soil Amendments. USDA-CSREES Methyl Bromide Transitions. \$696,339. 9/09 – 8/12. **(1, 2, 3, 4, 5, \$400,000).**

Carpenter-Boggs, L. (P.I.) Sustainable Biological Disease Management to Replace Methyl Bromide Fumigation in Washington's Christmas Tree Seedling Industry. Washington Department of Agriculture Specialty Crops Block Grant. \$53,529. 1/09 – 9/09. **(1, 2, 3, 4, 5, \$53,529).**

Carpenter-Boggs, L. (P.I.), D. Huggins, S. Bramwell. Integrating low-disturbance organic grain and livestock production in the dryland farming region of the Northwest. WSU CSANR Organic Research Program. \$50,000. 7/08 – 6/09. **(1, 2, 3, 4, 5, \$50,000).**

Carpenter-Boggs, L. (P.I.), W. Pan, R. Abi-Ghanem. Improving Value and Productivity of Pulse Crops by Optimizing Rhizobial Interactions. Central Asia and Caucasus Crop Improvement. \$26,000. 12/07 – 6/09. **(1, 2, 3, 4, 5, \$26,000).**

Carpenter-Boggs, L. (P.I.), C. Price. Demonstration and Outreach for Livestock Carcass Composting. Washington Department of Ecology. \$20,000. 7/07 – 6/08. **(1, 2, 3, 4, 5, \$20,000).**

Jones, S., **L. Carpenter-Boggs (cooperator),** B. Baik. Developing wheat varieties for organic agricultural systems. CSREES Organic Agriculture Research Initiative. \$690,557. 9/06 – 8/10. **(2, 3, \$0).**

Carpenter-Boggs, L. (P.I.), S. Bramwell. No-till Livestock-Grain Rotation for Diversified Farms. USDA Western Sustainable Agriculture Research and Education. \$122,531. 7/06 – 6/08. **(2, 3, 4, 5, \$122,531).**

Carpenter-Boggs, L. (P.I.) Control of Xanthomonas in Cabbage Seed. Organic Cropping Research Special Grant. \$46,730. 6/05 – 5/07. **(1, 2, 3, 4, 5, \$46,730).**

Reganold, J.P., **L. Carpenter-Boggs (Co-P.I.)**, L. Hoagland, F. Peryea. Nitrogen Supply and Partitioning in Managed Understories of Organic Apples. Organic Cropping Research Special Grant. \$54,369. 5/05 – 5/08. **(2, 3, 4, 5, \$20,000).**

Carpenter-Boggs, L. (P.I.) Shelf-stable liquid compost product. Washington Technology Center. \$47,980. 1/05 – 12/05. **(1, 2, 3, 4, 5, \$47,980).**

Verhey, S., **L. Carpenter-Boggs (Co-P.I.)**. The Rumpelstiltskin Project: Adding Value to Agricultural and Biosolid Wastes. Washington Technology Center. \$118,564. 1/05 – 12/05. **(1, 2, 3, 4, 5, \$60,000).**

Reganold, J.P., P.K. Andrews, **L. Carpenter-Boggs (Co-P.I.)**. Soil and strawberry quality under organic and conventional management. The Organic Center. \$120,000. 7/04 – 12/06. **(2, 3, 5, \$5,000).**

Courses Taught: (100% unless otherwise noted)

Current

- ◆ Organic Gardening & Farming (online). Summer and Fall, 2012-present
- ◆ Current Research in Organic and Sustainable Agriculture 50% 2014, 100% 2016-present
- ◆ Soil Management for Sustainable and Organic Farming Systems, new in 2017
- ◆ Graduate Research. 2005-present
- ◆ Undergraduate Research Experience. 2012-present
- ◆ Teaching Practicum. 2012-present

Past

- ◆ Advanced Cropping Systems. 50% 2005
- ◆ Advanced Organic Farming and Gardening. 25% 2015
- ◆ Civic Engagement in Sustainable Agriculture and Food Systems. 2010-2014
- ◆ Composting. 2006
- ◆ Soil Science Graduate Seminar. 2013-2014
- ◆ Methods for Analysis of Nitrogen in the Environment. 5-15% 2012-2013
- ◆ Nitrogen Cycling in the Environment. 3-10% 2009-2013
- ◆ Soil: A Living System (Introductory Soils). 50% 2003
- ◆ Soil Analysis. 25% 2004, 2005
- ◆ Soil Fertility. 50% 2005, 2006
- ◆ Soil-Plant-Microbial Interactions. 2005, 2006
- ◆ Soil Microbiology and Biochemistry. 1996, 2004, 2005

Guest Lectures

- ◆ Introduction to Cultivated Plants
- ◆ World Agricultural Systems
- ◆ Soil-Plant-Microbial Interactions
- ◆ Introductory Soil Science Laboratory
- ◆ Organic Gardening and Farming

Online Course Development

- ◆ Organic Gardening & Farming
- ◆ Advanced Organic Farming and Gardening
- ◆ Organic Farm and Garden Field Management
- ◆ Current Research in Organic and Sustainable Agriculture

University Service

- ◆ Eggert Family Organic Farm Development Coordinator
- ◆ College of Agriculture, Human, and Natural Resources Plant Growth Facilities Committee
- ◆ Faculty Senate Committee on Committees
- ◆ Soil Science Graduate Affairs Advisor (Pullman Campus)
- ◆ Soil Science Graduate Admission Committee

Featured Speaking Events

- ◆ WSU Innovators Series, May, 2010 Seattle, WA. “Green from the Ground Up”
- ◆ World Agriculture Update: Toward Agro-Health, March 2009 Al-Ain, United Arab Emirates. “Global Organic Agriculture: Issues and Solutions for Arid Regions”

Extension Education

Approximately 55 field or County presentations, 5 online webinars, and 20 statewide or multi-state lectures on topics including:

- | | |
|---|--------------------------------------|
| ◆ Organic Community Supported Agriculture | ◆ Composting |
| ◆ Livestock Mortality Composting | ◆ Biological Nitrogen Fixation |
| ◆ Managing Soil Biology | ◆ Biodynamic Agriculture |
| ◆ Crop-Livestock Integration | ◆ Climate Change |
| ◆ Organic Fertility Management | ◆ Biologically Intensive Agriculture |
| ◆ Soil Profiles and Pedology | ◆ Compost Teas |
| ◆ WSU Organic and Sustainable Agriculture Educational Opportunities | |

Event Organizer

- ◆ One-day University, Soil Fertility and Organic Farming, August 2015.
- ◆ Field Days, multiple including WSU Organic Farm Field Day, July 2013-2016
- ◆ Center for Sustaining Agriculture and Natural Resources 20th Anniversary Celebration (co-organizer), December 2012
- ◆ Dryland Organic Agriculture in the PNW, November 2011
- ◆ Organic Gardening Intensive, February-April 2010, 2011
- ◆ Beyond Local and Organic: Future Directions in Sustainable Food Systems (Palouse Panel) Oct. 2010
- ◆ WSU Nitrogen Summit, April 2010
- ◆ Compost Management and Use Session, Washington Association of Winegrape Growers, February 2010
- ◆ BIOAg Tours June-July 2007, 2008, 2009
- ◆ Focus the Nation (Climate Change), February 2007
- ◆ BIOAg Symposia, September-October 2006, 2007, 2008

Examples of Press Coverage and Public Use

Seattle Times, May 8, 2016. Respecting the Earth, even in death: Seattle architect proposes human composting. By Lauren Frohne.

<http://www.seattletimes.com/life/respecting-the-earth-even-in-death-seattle-architect-proposes-human-composting/>

Western Carolina University News, February 4, 2016. Reposted to AASHE (Association for the Advancement of Sustainability in Higher Education) Bulletin, February 10, 2016. Western Carolina U Grounds Contributes to Human Decomposition Research. By Randall Holcombe. <http://news-prod.wcu.edu/2016/02/wcu-contingent-works-on-latest-phase-of-urban-death-project/>.

New York Times, April 13, 2015. Returning the Dead to Nature. By Catrin Einhorn. http://www.nytimes.com/2015/04/14/science/a-project-to-turn-corpses-into-compost.html?_r=0.

The Stranger, March 3, 2015. The Architect Who Wants to Redesign Being Dead. By Brendan Kiley. <http://www.thestranger.com/features/feature/2015/03/03/21792773/the-architect-who-wants-to-redesign-being-dead>.

Seattle Weekly News, Jul 8, 2014. The Urban Death Project Will Help You Give Back—by Turning You Into Compost: An architect comes up with a surprising way to be productive one last time. By Nina Shapiro. <http://www.seattleweekly.com/news/953590-129/the-urban-death-project-will-help>

Michigan State University Climate Change and Variability website, September 2013, lists WSU Extension Publication FS069E Global Climate Change. http://climate.msue.msu.edu/educational_materials/

Seattle Weekly News, November 20, 2012. Cedar Grove: Reduce, Reuse, Revolting: The problem with compost? By Nina Shapiro. <http://www.seattleweekly.com/2012-11-21/news/cedar-grove-reduce-reuse-revolting/>.

WSU Today, October 18, 2011. Developing beans to replenish soil. <http://news.wsu.edu/pages/publications.asp?Action=Detail&PublicationID=28172&TypeID=1>

On Solid Ground, June 22, 2011. WSU Researchers Investigate Alternatives to Methyl

Bromide. <http://cahnrnews.wsu.edu/2011/06/22/methyl-bromide-alternatives-raspberries/>.

The PLoS ONE article (Reganold et al., 2010) was covered on NPR's Science Friday (with Ira Flatow) and in the Washington Post, Los Angeles Times, www.grist.com, www.huffingtonpost.com, and dozens more.

Capital Press, June 3, 2010. University shares sustainable goals: Researchers tackle waste, inefficiencies; find cost savings. <http://www.capitalpress.com/content/-SB-WSU-innovation-060410-art>.

Growing Magazine, August 2008. Make your credentials green. <http://www.growingmagazine.com/article-1866.aspx>.

Moscow Food Co-Op Newsletter, March 2008. Local Initiatives Toward Organic: a Conversation with Dr. Lynne Carpenter-Boggs. <http://www.moscowfood.coop/content/view/332/27/>.

Western Farmer Stockman, January 1, 2008. Washington State U offers sustainable ag graduate certificate. <http://westernfarmerstockman.com/story.aspx/washington/state/u/offers/sustainable/ag/graduate/certificate/15026>.

Skeptical Inquirer, Nov/Dec 2007. Biodynamics in the wine bottle. Article states: "Lynne Carpenter-Boggs and her thesis advisor, John Reganold, both at Washington State University, have done what is perhaps the most highly regarded scientific work on biodynamics." www.csicop.org/si/show/biodynamics_in_the_wine_bottle/.

Good Fruit Grower. April 15, 2007. Inoculating the soil: Soil inoculants can be a waste of money unless you have a conducive soil. <http://www.goodfruit.com/Good-Fruit-Grower/April-15th-2007/Inoculating-the-soil/>.

Western Farmer-Stockman. October, 2006. Carbon Promise Looms. <http://magissues.farmprogress.com/WFS/WS10Oct06/WS01%20to17.html>.

Post-Docs and Visiting Scientists

- 2014-2016 ♦ Julia Piaskowski (post-doc) Genetic and physiological assessment of acid tolerant rhizobia
- 2011 ♦ Ahmed Al-Hammouri (post-doc) Mechanisms for green manure reduction of Verticillium wilt of potato
- 2009-2010 ♦ Dr. Abbas Biabani (visiting scientist, Iran) Biological nitrogen fixation in legume and non-legume grains

Graduate Students

Major advisor: (2 Ph.D. and 3 M.S. graduated since 2011)

- 2017- ♦ Fatimah Aljaafar (M.S. Environmental Science) Life Cycle Analysis and Biofuels for Sustainable Agriculture
- 2016- ♦ Abdelsalam Aldarmon (Ph.D. Soil Science) Specialty biochar for

- water holding in arid soils
- 2016- ◆ Leslie Michel (M.S. Soil Science) Cover crops for soil health
 - 2016- ◆ Julius Bush (M.S. Agriculture) Education for sustainable
greenhouse management
 - 2015- ◆ Adel Almesmari (Ph.D. Horticulture) Foliar fertilizing with
compost teas
 - 2014- ◆ Cornelius Adewale (Ph.D. Environmental Science) Managing
carbon footprint and nitrogen fertility on organic farms
 - 2012- ◆ Rachel Wieme (Ph.D. Soil Science, co-advise with John
Reganold) Crop rotations for quinoa in the Palouse
 - 2012- ◆ Michael Lege (Ph.D. Environmental Science) Improvement and
adoption of high nitrogen-fixing inoculants for dry beans in east-
central Africa
 - 2011-2016 ◆ Bodh Paudel (Ph.D. Soil Science) Control of soil borne diseases
with brassica seed meals and green manure
 - 2011-2013 ◆ Marina Heppenstall (M.S. Environmental Science, co-advise with
Dave Huggins) Transformations and bioavailability of organic inputs
 - 2011-2013 ◆ Cornelius Adewale (M.S. Soil Science) Carbon footprint and
fertility management on organic farms
 - 2010-2012 ◆ Michael Lege (M.S. Environmental Science, co-advise with Jahi
Chappell) Potential for improvement and adoption of high nitrogen-
fixing dry beans in east-central Africa
 - 2008-2016 ◆ Catherine Crosby (Ph.D. Soil Science) Harnessing the
microbiome for sustainability
 - 2006-2009 ◆ Rita Abi-Ghanem (Ph.D. Soil Science) Biological nitrogen fixation
in lentils, peas, and chickpeas; and Extension education for Iraq
 - 2005-2008 ◆ Catherine Crosby (M.S. Soil Science) Characteristics of compost
tea microbial communities, and effects on seed borne
Xanthomonas campestris pv *campestris*
 - 2006-2008 ◆ Caitlin Price (M.S. Soil Science) Livestock mortality composting
demonstration and outreach
 - 2005-2008 ◆ Stephen Bramwell (M.S. Soil Science) Mixed crop-livestock
farming systems for the inland northwest, US
 - 2004-2007 ◆ Jennifer Reeve (Ph.D. Soil Science, co-advise with John
Reganold) Soil quality, microbial community structure, and organic
nitrogen uptake in organic and conventional farming systems
 - 2004-2007 ◆ Lori Hoagland (Ph.D. Soil Science, co-advise with John
Reganold) Nitrogen supply and partitioning in organic orchards
 - 2004-2007 ◆ Noah Bonds (M.S. Soil Science) Composting of mint waste
 - 2004-2006 ◆ Marjorie Jernigan (M.S. Soil Science) Characteristics of aerated
compost tea and effects on disease suppression and plant growth
 - 2001-2003 ◆ Jennifer Reeve (M.S. Soil Science, co-advise with John
Reganold) Effects of Biodynamic preparations on soil, winegrape,

and compost quality on a California vineyard

Graduate Committee member:

- 2016- ♦ Chiti Agarwal (Ph.D. Plant Pathology)
- 2016- ♦ Anjuman Islam (M.S. Soil Science)
- 2016- ♦ Alex Davis (Ph.D. Soil Science)
- 2016- ♦ Summer Lockhart (M.S. Environmental Science)
- 2016- ♦ Kate Smith (M.S. Agriculture)
- 2015- ♦ Qiuping Peng (Ph.D. Soil Science)
- 2015-2017 ♦ Julianne Kellogg (M.S. Crop Science)
- 2015-2017 ♦ Kristofor Ludvigson (M.S. Soil Science)
- 2014- ♦ Fairuz Buajaila (Ph.D. Horticulture)
- 2014- ♦ Nurul Amin (Ph.D. Crop Science)
- 2014- ♦ Anne Pollard (Ph.D. Soil Science)
- 2014-2016 ♦ Victoria Barth (M.S. Soil Science)
- 2013-2017 ♦ Eninka Mndowla (Ph.D. Crop Science)
- 2013-2016 ♦ Carol McFarland (M.S. Soil Science)
- 2013-2015 ♦ Amy Salamone (M.S. Plant Pathology)
- 2013-2015 ♦ Bethany Wolters (M.S. Soil Science)
- 2012- ♦ Judith Waite (Ph.D. Environmental Science)
- 2012-2015 ♦ Rachel Unger (Ph.D. Soil Science)
- 2012-2016 ♦ Emily Bruner (Ph.D. Soil Science)
- 2012-2014 ♦ Lia Shrewsbury (M.S. Soil Science)
- 2012-2014 ♦ Jason Morrow (M.S. Soil Science)
- 2012-2014 ♦ Hannah Walters (M.S. Soil Science)
- 2011-2017 ♦ Jonathan Wachter (Ph.D. Soil Science)
- 2011-2013 ♦ Alex Crump (M.S. Soil Science)
- 2010-2014 ♦ Galen Woodward (M.S. Soil Science)
- 2009-2014 ♦ Anna Leon (Ph.D. Plant Pathology)
- 2009-2015 ♦ Dan Teravest (Ph.D. Soil Science)
- 2009-2011 ♦ Catherine Jones (M.S. Soil Science)
- 2009-2011 ♦ Benjamin Derrick (M.S. Environmental Science)
- 2009-2010 ♦ Zak Kennedy (M.S. Agriculture)
- 2009-2011 ♦ Jolene Mwengi (M.S. Soil Science)
- 2007-2009 ♦ Dan Teravest (M.S. Soil Science)
- 2006-2013 ♦ Triven Pillai (M.S. Soil Science)
- 2006-2008 ♦ Courtney Bennett (M.S. Environmental Science)

Other Advising

- 2007- ♦ Director, Graduate Certificate in Sustainable Agriculture. Developed the

- present certificate program through discussion with students and faculty. Manage webpage, advertise program, advise students, approve certificate applications. Program approved for Global Campus
- 2008-2014 ♦ Director, Spring to Action Break for Change (Civic Engagement in Sustainability). Developed and led this annual alternative spring break service learning event with WSU Center for Civic Engagement. Perform community service and generate critical thinking in community sustainability and food systems.

H- and I10 Indexes

Overall h-index (Google Scholar): 20 (20 articles with at least 20 citations)
 5-year h-index: 17 (18 articles with at least 17 citations in past 5 years)
 i10-index: 25 (24 publications with at least 10 citations)
 5-year i10-index: 24 (24 publications with at least 10 citations in past 5 years)

Professional Articles, Refereed

Asterisk "*" indicates article in which Carpenter-Boggs is a senior author.

Numbers indicate contributions to these areas:

- 1) Developed the initial idea
- 2) Obtained or provided funds or other resources
- 3) Collected data
- 4) Analyzed data
- 5) Wrote/created product
- 6) Edited product

Professional articles, refereed (44)

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<u>Journal of Cleaner Production</u>	3.8
<u>Applied and Environmental Microbiology</u>	3.7
<u>Soil Biology and Biochemistry</u>	3.0
<u>Soil Science Society of America Journal</u>	2.2
<u>Phytopathology</u>	2.2
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<u>Renewable Agriculture and Food Systems</u>	0.8
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