

MARY ELLEN BARBERCHECK

<http://www.ento.psu.edu/personnel/Faculty%20pages/barbercheck.htm>

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CURRENT APPOINTMENT: Full Professor, Dept. of Entomology, The Pennsylvania State University; .8 Research (Sustainable Agriculture), .2 Extension (Pastures/Forages)

Research focus on soil entomology and ecology, effects of agricultural production practices on soil-dwelling insect pathogens (nematodes and fungi), soil arthropod diversity and soil function as related to system sustainability. Also has research and extension interest in the area of organic agriculture, women and gender in agriculture, science and technology. Extension program focus on the soil food web, soil quality, and IPM in organic production systems.

EDUCATION

B.A. University of California, Santa Barbara, 1980. Environmental Biology

M.S. University of California, Davis, 1982. Plant Protection and Pest Management

Ph.D. University of California, Davis, 1990. Entomology

PROFESSIONAL EXPERIENCE

1980-81 Laboratory Assistant, Dept. Botany, University of California, Davis

1981-82 Agricultural Inspector, California Dept of Food and Agriculture, Sacramento, CA.

1982 Laboratory Assistant, Dept. Pomology, UC Davis

1982-85 Agricultural Researcher, Plant Protection Research Institute, Stellenbosch, South Africa

1986-90 Graduate Research Assistant, Dept. Entomology, UC Davis

1987-88 Teaching Assistant, Dept. Entomology, UC Davis (Biological Control, Insect Pathology, Economic Entomology)

1990-96 Assistant Professor, Dept. Entomology, North Carolina State University (Soil Entomology)

1996-2002 Associate Professor, Dept. Entomology, NCSU

2002 Full Professor, Dept. Entomology, NCSU; .9 Research, .1 Teaching

2002 - Full Professor, Dept. Entomology, PSU; .8 Research, .2 Extension

SCHOLARLY AND PROFESSIONAL ACTIVITIES AND HONORS: Panel member, USDA RENRE Agroecosystems, 2014; Society for Invertebrate Pathology, Secretary, Microbial Control Division 2018-2020; Member-at-Large Fungi Division, 2016-2018, Secretary 2014-2016, Annual Meeting Local Arrangements Committee, 2013; Co-organizer Nematode Division Symposium, 2004; Secretary/Treasurer, Nematode Division 2002-2005; Panel Member, USDA OREI, 2010, 2012; eXtension.org Organic Agriculture Resource Area Leadership Team, 2008 - 2011; PSU Outreach Vice President's Award (Crop Management Extension Group), 2008; Panel Member, USDA NRI Arthropod/Nematode Organismal, 2007; Review Team Member, Cornell Dept. Entomology, 2006; Pennsylvania Certified Organic Outstanding Research Award, 2006; PSU Outreach Vice President's Award for Learning and Community (PA Women's Agricultural Network), 2005; Panel Member, USDA CSREES NRI, Entomology/ Nematology, 2004; Panel

Member, USDA CSREES Bio-based Pest Management, 2003; AMA/NRCS Committee on Organic Cost Share, 2003; Entomological Society of America Distinguished Teaching Award Committee, 2003-2004. USDA T-STAR Panel member (Caribbean Basin Agriculture), 2003; Society for Invertebrate Pathology Auditing Committee, 2003-2004; Pennsylvania Association of Sustainable Agriculture Board of Directors, 2003-12; Society for Invertebrate Pathology; AAAS Biological Sciences Council Member, 2001-07; Carolina Farm Stewardship Assoc. Board of Directors, 2001-03; Equity for Women Award, Council on the Status of Women, NCSU, 2001; Society for Invertebrate Pathology Editorial Board, 2000-2003; NCSU CALS Faculty Resource Development Award, 2000; Entomology Educational Project Award, Board Certified Entomologists of Mid-America, 2000; Instructor, Insect Nematology. Short Course on Insect Pathology for Central America and Mexico. Tegucigalpa, Honduras, Dec. 6-11, 1999; Griswold Lecturer, Cornell University (Jugatae), 1999; USDA CSREES NRI CGP Panel member (Biologically-Based Pest Mgmt.), 1999; Program Chair, Entomological Society of America, 1998; Teaching Excellence Initiative Award, Division of Undergraduate Studies, NCSU, 1996; Certificate of Appreciation, Council on the Status of Women, NCSU, 1997 and 2001; USDA CSREES NRI CGP Panel member (Alternative Pest Management), 1996; USDA CSRS NRI CGP Panel member (Biological Control), 1995; Fulbright Postdoctoral Research Fellowship, 1990 (declined); *Xiphinema barbercheckae* Coomans & Heyns 1985 (Nemata: Dorylaimida)

PROFESSIONAL SOCIETY MEMBERSHIPS:

Entomological Society of America, Society for Invertebrate Pathology, Pennsylvania Association for Sustainable Agriculture, Pennsylvania Certified Organic, IFOAM Organics International

SYNERGISTIC ACTIVITIES:

Pennsylvania Association for Sustainable Agriculture - Board of Directors, 2003 - 2012; Secretary of the Board of Directors, 2007 - 2012; Co-Chair, Annual Conference Committee, 2003 - 2011; Program Refinement Team, 2014-2015; Education and Outreach Committee, 2008 – 2017; Conference Committee, 2018- Pennsylvania Certified Organic - Technical Advisory Panel since 2004; Certification Audit Committee since 2004; Education and Outreach Committee since 2008.

Pennsylvania Women’s Agricultural Network - founding member and steering committee member since 2003. PA-WAgN encourages and supports women in agriculture; provides educational and mentoring opportunities; raises community awareness of agricultural related issues and concerns; and sustains farming livelihoods for women in agriculture.

eOrganic - Leadership Team Member 2008 – 2011

http://www.extension.org/pages/eOrganic_Leadership_Team_and_Group_Leaders Insect Management Articles <http://www.extension.org/article/18593>

SPONSORED RESEARCH RECORD:

USDA Beginning Farmers and Ranchers, USDA Higher Education Challenge Grant Program, USDA NE-IPM, USDA NIFA OREI, USDA NIFA ORG, USDA NBFRRP,

USDA RAMP, USDA NRI, USDA IPM-ORG, USDA NE SARE Graduate Student Grants, USDA NE SARE PDP, USDA NE SARE R&E, USDA CSREES NE-IPM, USDA RMA, PSU COAS, NC GoldenLEAF, USDA SR SARE, USDA IFAFS, USDA CSREES NRI, NSF SUCCEED, NCSU Division of Undergraduate Studies, Z. Smith Reynolds, N.C. Corn Grower's Association, Inc., US EPA, BASF, Inc., Biosys, Inc., Microflo, Inc., The Charles A. Lindbergh Fund, Inc., NC Peanut Grower's Assoc., Inc., USDA Forest Service

PEER REVIEWED PUBLICATIONS:

2020

Ahmad, I., M. Jiménez-Gasco, D. S. Luthe, S.N. Shakee, M.E. Barbercheck. Endophytic *Metarhizium robertsii* promotes maize growth, suppresses insect growth and alters plant defense gene expression. *Biological Control: In press*, Manuscript ID # BCON_2019_658

Hinds, J., Barbercheck, M.E. Diversified floral provisioning enhances performance of the generalist predator, *Orius insidiosus* (Hemiptera: Anthocoridae), *Biological Control: In press*, Manuscript ID # BCON_2019_668

Jabbour, R., C. Francis, M. Barbercheck, K. S. Ullman. 2019. Organic Agriculture Teaching and Learning in 2025: A Futuring Workshop to Guide Transformation of the Learning Landscape. *In press*. NACTA Journal. (MS# 2019-0115)

Rowen, E., Regan, K., Barbercheck, M., Tooker, J. Is Tillage Beneficial or Detrimental for Insect and Slug Management? A Meta-Analysis? *In press*, *Agric. Ecosyst. Environment*, Ms # AGEE23980.

Wallace, J., Isbell, S., Hoover, R., Barbercheck, M., Kaye, J., Curran, W. Drill and broadcast establishment methods influence interseeded cover crop performance in organic corn. *Renewable Ag and Food Systems: In press*, RAFS-D-19-00107R1.

2019

Bell, T.H., K.L. Hockett, R.I. Alcalá-Briseño, M. Barbercheck, G. A. Beattie, M.A. Bruns, J. Carlson, T. Chung, A. Collins, B. Emmett, P. Esker, K. A. Garrett, L. Glenna, B. Gugino, M. del mar Jimenez-Gasco, L. Kinkel, J. Kovac, K. Kowalski, G. Kuldau, J. Leveau, J. Myrick, K. Peter, A. Shade, N. Stopnisek, X. Tan, A. T. Welty, K. Wickings, E. Yergeau. 2019. Manipulating Wild and Tamed Phytobiomes: Challenges and Opportunities. *Phytobiomes Journal*, <https://doi.org/10.1094/PBIOMES-01-19-0006-W>

Hunter, M.C., M.E. Schipanski, M.H. Burgess, J.C. LaChance, B.A. Bradley, M.E. Barbercheck, J.P. Kaye, D.A. Mortensen. 2019. Cover crop mixture effects on maize, soybean, and wheat yield in rotation. *Agric. Environ. Lett.* 4:180051
doi:10.2134/aer2018.10.0051

Neher, D.A. and Barbercheck, M.E. 2019. Soil microarthropods and soil health: Intersection of decomposition and pest suppression. *Insects* 10(12):414.doi: 10.3390/insects10120414

Invited review for special issue: Elucidating the Role of Soil Arthropods in Soil Health.
https://www.mdpi.com/journal/insects/special_issues/soil_arthropods

Pisani-Gareau, T., Voortman, C., Barbercheck, M. 2019. Carabid beetles (Coleoptera: Carabidae) differentially respond to soil management practices in feed and forage systems in transition to organic management. *Renewable Agriculture and Food Systems* (First View, published online 13 August 2019.

DOI: <https://doi.org/10.1017/S1742170519000255>

2018

Baraibar, B.; D. A. Mortensen, M. Hunter, M. E. Barbercheck, J. P. Kaye, D. Finney, W. Curran, J. Bunck, C. White. 2018. Growing degree days and cover crop identity explain weed biomass in cover crops. *Agronomy for Sustainable Development* 38: 65. <https://doi.org/10.1007/s13593-018-0543-1>

Randhawa, P. K., Mullen, C., Barbercheck, M. 2018. Plant identity, but not diversity, and agroecosystem characteristics affect the occurrence of *M. robertsii* in an organic cropping system. *Biological Control* 124:18-29. <https://doi.org/10.1016/j.biocontrol.2018.06.001>

Rivers, A., Mullen, C., Barbercheck, M. 2018. Cover crop species and management influence predatory arthropods and predation in an organically-managed, reduced-tillage cropping system. *Environmental Entomology* 47: 340-355. <https://doi.org/10.1093/ee/nvx149>

2017

Finney, D. M. Ebony G. Murrell, Charles M. White, Barbara Baraibar, Mary E. Barbercheck, Brosi A. Bradley, Sarah Cornelisse, Mitchell C. Hunter, Jason P. Kaye, David A. Mortensen, Christina A. Mullen, and Meagan E. Schipanski. 2017. Ecosystem services and disservices are bundled in simple and diverse cover cropping systems. 2017. *Agricultural & Environmental Letters* 2:170033. doi:10.2134/ael2017.09.0033

Keene, C., Curran, W., Wallace, J., Ryan, M., Mirsky, S., VanGessel, M., Barbercheck, M. 2017. Cover crop termination timing is critical in organic rotational no-till systems. *Agronomy Journal* 109:272-282. doi:10.2134/agronj2016.05.0266

Rivers, A., Mullen, C., Wallace, J., Barbercheck, M. 2017. Cover crop-based reduced tillage system influences Carabidae (Coleoptera) activity, diversity and trophic group during transition to organic production. *Renewable Agriculture and Food Systems* 32 (6): 538-551.

Schipanski, M. E., Mary E. Barbercheck, Ebony G. Murrell, Jayson Harper,

Denise M. Finney, Jason P. Kaye, David A. Mortensen, Richard G. Smith. 2017. Balancing multiple objectives in organic feed and forage cropping systems. *Agric. Ecosyst. Env.* 239: 219-227.

2016

Jabbour, R., T. Pisani-Gareau, R. G. Smith, C. Mullen, M. Barbercheck. 2016. Tillage mediates legacy effects of cover crops on ground-dwelling arthropods during organic transition. *Renewable Agriculture and Food Systems* 31(4): 361-374
DOI: <http://dx.doi.org/10.1017/S1742170515000290>

Rivers, A., M. Barbercheck, B. Govaerts, N. Verhulst. 2016. Conservation agriculture practices contribute to an even arthropod predator assemblage and increased predation in a rainfed maize-wheat system. *Applied Soil Ecology* 100: 81-90

2015

Ellis, K., Barbercheck, M. 2015. Management of overwintering cover crops influences floral resources and visitation by native bees. *Environmental Entomol.* 44 (4): 999-1010.
DOI: <http://dx.doi.org/10.1093/ee/nvv086>

Schipanski, M.E., M. Barbercheck, M. R. Douglas, D. M. Finney, K. Haider, J. P. Kaye, A. R. Kemanian, D. A. Mortensen, M. R. Ryan, J. Tooker, C. White. 2015. A framework for evaluating ecosystem services provided by cover crops in agroecosystems. *Agricultural Systems* 125: 12-22.

Schipanski, M., R.G. Smith, T.L. Pisani Gareau, R. Jabbour; D.B. Lewis, M.E. Barbercheck, D. A. Mortensen, J.P. Kaye. 2015. The structure of multivariate relationships influencing crop yields during the transition to organic management. *Agriculture, Ecosystems, and Environment* 189: 119-126.

2014

Barbercheck, M., K. Brasier, N. E. Kiernan, C. Sachs, A. Trauger. 2014. Use of conservation practices by women farmers in the Northeastern United States. *Renewable Agriculture and Food Systems* 29(1): 65 -82.

Brasier, K., Barbercheck, M. Kiernan, N.E., Sachs, C., Trauger, A. 2014. Capturing the Multiple and Shifting Identities of Farm Women in the Northeastern United States. *Rural Sociology*. First published online 19 March 2014.
<http://onlinelibrary.wiley.com/doi/10.1111/ruso.12040/abstract>

2012

Barbercheck, M., N. E. Kiernan, A. G. Hulting, S. Duiker, J. Hyde, H. Karsten, E. Sanchez. 2012. Meeting the "multi-" requirements in organic agriculture research: Successes, challenges, and recommendations for multifunctional, multidisciplinary, participatory projects. *Renewable Agriculture and Food Systems* 27 (2): 93-106

Campos–Herrera, R., M. Barbercheck, C. W. Hoy, S. P. Stock. 2012. Entomopathogenic nematodes as a model system for advancing the frontiers of ecology. *Journal of Nematology* 44(2): 162-176.

Kiernan, N.E., M. E. Barbercheck, K. J. Brasier, C. Sachs. 2012. Women farmers: Pulling up their own educational boot straps with Extension. *Journal of Extension* Vol. 50 (5):5RIB5 <http://www.joe.org/joe/2012october/rb5.php>

Neher, D., T. Weicht, and M. Barbercheck. 2012. Linking invertebrate communities to decomposition rate and nitrogen availability in pine forest soils. *Applied Soil Ecology* 54:14-23.

2011

Greenwood, C. M., M.E. Barbercheck, C. Brownie. 2011. Short term response to soil microinvertebrates to application of entomopathogenic nematode-infected insects in two tillage systems. *Pedobiologia* 54: 177-186.

Jabbour, R., Barbercheck, M. 2011. Soil microarthropod response to the application of entomopathogenic nematode-killed insects in maize and flower strip habitats. *Pedobiologia* 54: 243 – 251.

Lewis, D. B., J. P. Kaye, R. Jabbour, and M. E. Barbercheck. 2011. Labile carbon and other soil quality indicators in two tillage systems during transition to organic agriculture. *Renewable Agriculture and Food Systems* 26(4): 342-353.

Smith, R. G., T. P. Gareau, D. Mortensen, W. Curran, M. Barbercheck. 2011. Assessing and visualizing management practices: A multivariable hands-on approach for education and extension. *Weed Technology* 25: 680-687.

Smith, R. G. A., M. Barbercheck, D. Mortensen, J. Hyde, A. Hulting. 2011. Effects of cover crop and tillage system on crop yields, weed abundance and net returns during the transition to organic feed grain production. *Agronomy Journal* 103: 51 – 59.

Ward, M.J., Ryan, M.R., Curran, W.S., Barbercheck, M.E., Mortensen, D.A. 2011. Cover crops and disturbance influence activity-density of weed seed predators *Amara aenea* and *Harpalus pensylvanicus* (Coleoptera: Carabidae). *Weed Science* 59: 76-81.

2010

Gareau, T.L.P., Smith, R. G., Barbercheck, M. E., Mortensen, D.A. 2010. Spider Plots: A Tool for Participatory Extension Learning. *Journal of Extension*. Volume 48 (5): 5TOT8, <http://www.joe.org/joe/2010october/tt8.php>

Trauger, A., Sachs, C., Barbercheck, M., Kiernan, N. E., Brasier, K. 2010. 'The Object of Extension': Agricultural Education and Authentic Farmers in Pennsylvania, USA. *Sociologia Ruralis* 50: 85-103.

2009

Barbercheck, M., K. Brasier, N. E. Kiernan, C. Sachs, A. Trauger. 2009. Meeting the Extension Needs of Women Farmers: A Perspective from Pennsylvania. Journal of Extension, <http://www.joe.org/joe/2009june/a8.php>.

Brasier, K., M. Barbercheck, N. E. Kiernan, C. Sachs, A. Schwartzberg, A. Trauger. 2009. Extension Educators' Perceptions of the Educational Needs of Women Farmers. Journal of Extension, <http://www.joe.org/joe/2009june/a9.php>.

Jabbour, R., Barbercheck, M. 2009. Soil management effects on entomopathogenic fungi during the transition to organic agriculture in a feed grain rotation. Biological Control 51: 435-443.

Smith, R.G., R. Jabbour, A. G. Hulting, M.E. Barbercheck, D. A. Mortensen. 2009. Effects of initial seed bank density on weed seedling dynamics during the transition to an organic feed grain crop rotation. Weed Science 57: 533 – 540.

2008

Barbercheck, M. 2008. Review of Field Manual of Techniques in Invertebrate Pathology: Application and Evaluation of Pathogens for control of Insects and other Invertebrate Pests (2nd edition). Entomologia experimentalis et applicata 129:115

Barbercheck, M.E., D.A. Neher, O. Anas, S.M. El-Allaf, and T.R. Weicht. 2008. Response of soil invertebrates to disturbance across three resource regions in North Carolina. Environmental Monitoring and Assessment 0167-6369 (Print) 1573-2959 (Online). DOI 10.1007/s10661-008-0315-5

Jabbour, R., M. E. Barbercheck. 2008. Soil and habitat complexity effects on movement of the entomopathogenic nematode *Steinernema carpocapsae* in maize. Biological Control 47: 235-243.

Trauger, A., Sachs, C., Barbercheck, M., Brasier, K., Kiernan, N.E. 2008. "Our market is our community": women farmers and civic agriculture in Pennsylvania, USA. Agriculture and Human Values 26 (3): 0889-048X (Print) 1572-8366 (Online)

Trauger, A., Sachs, C., Barbercheck, M., Brasier, K., Kiernan, N.E. 2008. Agricultural education: Gender identity and knowledge exchange. Journal of Rural Studies 24: 432-439.

Pre-2008

Stuart, R.J., M. E. Barbercheck, P. S. Grewal, R. A.J. Taylor, C. W. Hoy. 2006. Population biology of entomopathogenic nematodes: Concepts, issues and models. Biological Control 38: 80-102

Neher, D. A., J. Wu, M.E. Barbercheck and O. Anas. 2005. Ecosystem type affects interpretation of soil nematode community measures. Applied Soil Ecology 30: 47-64

Eaton, R. J., Barbercheck, M., Buford, M., Smith, W. 2004. Effects of organic matter removal, soil compaction, and vegetation control on collembolan populations. *Pedobiologia* 48: 121-128

Barbercheck, M.E., J. Wang, and C. Brownie. 2003. Adaptation of the entomopathogenic nematode, *Steinernema carpocapsae*, to insect food plant. *Biological Control* 27: 81 – 94

Barbercheck, M. 2003. Entomopathogenic Nematology (Book Review) *Entomologia Experimentalis et Applicata* 108: Page 211

Neher, D., M. E. Barbercheck, S. El-Allaf & O. Anas. 2003. Effects of Disturbance on Decomposition of Cellulose and Lignin. *Applied Soil Ecology* 23:165-179

Millar, L.C. and M. E. Barbercheck. 2002. Effects of tillage practices on entomopathogenic nematodes in a corn agroecosystem. *Biological Control* 25: 1-11

Mueller, J. P., M. E. Barbercheck, M. Bell, C. Brownie, N. Creamer, A. Hitt, S. Hu, L. King, H.M. Linker, F.J. Louws, S. Marlow, M. Marra, C. W. Raczkowski, D. J. Susko, and M.G. Wagger. 2002. Development and Implementation of a Long-Term Agricultural Systems Study: Challenges and Opportunities. *HortTechnology* 12: 362-368

Hummel, R., J. F. Walgenbach, M. E. Barbercheck, G. G. Kennedy, G. D. Hoyt, and C. Arellano. 2002. Effects of production practices on soil-borne entomopathogens in western North Carolina vegetable systems. *Environmental Entomol.* 31: 84-91

Millar, L. C. and M. E. Barbercheck. 2001. Interaction between endemic and introduced entomopathogenic nematodes in corn. *Biological Control.* 22: 235-245

Hertl, P. T., R.L. Brandenburg & M. Barbercheck. 2001. The effect of soil moisture on ovipositional behavior in the southern mole cricket, *Scapteriscus borellii* Giglio-Tos (Orthoptera: Gryllotalpidae). *Env. Entomol.* 30: 466-473

Costa, S., M. Barbercheck, & G.G. Kennedy . 2001. Mortality of Colorado potato beetle (*Leptinotarsa decemlineata*) after sub-lethal stress with *Bacillus thuringiensis* and subsequent exposure to *Beauveria bassiana*. *J. Invertebr. Pathol.* 77: 173-179

Costa, S., M. Barbercheck, & G.G. Kennedy . 2000. Sublethal acute and chronic exposure of Colorado Potato Beetle (Coleoptera: Chrysomelidae) to the *d*-endotoxin of *Bacillus thuringiensis*. *J. Econ. Entomol.* 93: 680-689

Barbercheck, M.E. and W.C. Warrick, Jr. 1997. Evaluation of trap cropping and biological control for management of southern corn rootworm in peanuts. *J. Entomol. Sci.* 32(2): 229-243

Eben, A.U. and M. E. Barbercheck. 1997. Host plant and substrate effects on mortality of

- southern corn rootworm from entomopathogenic nematodes. *Biol. Control* 8: 89-96
- Eben, A.U. and M. E. Barbercheck. 1997. Mexican Diabroticites: I. Laboratory tests on host breadth of *Acalymma* and *Diabrotica* spp. *Entomol. Exp. Appl.* 82: 53-62
- Eben, A.U. and M. E. Barbercheck. 1997. Mexican Diabroticites: II. Tests for preference of cucurbit hosts by *Acalymma* and *Diabrotica* spp. *Entomol. Exp. Appl.* 82: 63-72
- Barbercheck, M. E. and J. Wang. 1996. Effect of cucurbitacin D on in vitro growth of *Xenorhabdus* and *Photorhabdus*, symbiotic bacteria of entomopathogenic nematodes. *J. Invert. Pathol.* 68:141-145
- Eben, A.U. and M. E. Barbercheck. 1996. Sculpturing of the eggshell of some Mexican diabroticites (Coleoptera: Chrysomelidae). *Coleopterists Bull.* 51: 80-85
- Eben, A.U., M. E. Barbercheck & M. Aluja. 1996. Field observations on host plant associations and natural enemies of diabroticite beetles (Chrysomelidae: Luperini) in Veracruz, Mexico. *Acta Zoologica Mexicana*: 67: 47-65
- Hirsh, I.S. and M.E. Barbercheck. 1996. Effects of host plant and cucurbitacin on growth of larval *Diabrotica undecimpunctata howardi*. *Entomol. Exp. Appl.* 81: 47-51
- Barbercheck, M.E., D. Ames Herbert, Jr., and W. C. Warrick, Jr. 1995. Semiochemical baits for management of southern corn rootworm (Coleoptera: Chrysomelidae) in peanuts. *J. Econ. Entomol.* 88: 1754-1763
- Barbercheck, M.E., J. Wang and I. S. Hirsh. 1995. Host plant effects on entomopathogenic nematodes. *J. Invert. Pathol.* 66: 169-177
- Barbercheck, M.E. 1993. Tritrophic level effects on entomopathogenic nematodes. *Environ. Entomol.* 22: 1166-1171
- Barbercheck, M.E. 1992. Effect of soil physical factors on the biological control of soilborne pests. *Florida Entomologist* 75: 539-548
- Brust, G. E. & M.E. Barbercheck. 1992. Effect of dietary cucurbitacin C on southern corn rootworm egg survival. *Environ. Entomol.* 21:1466-1471
- Barbercheck, M.E. and Kaya, H.K. 1991. Effect of host condition and soil texture on host finding by the entomogenous nematodes *Heterorhabditis bacteriophora* (Rhabditida: Heterorhabditidae) and *Steinernema carpocapsae* (Rhabditida: Steinernematidae). *Environ. Entomol.* 20: 582-589
- Barbercheck, M.E. and Kaya, H.K. 1991. Competitive interactions between

entomopathogenic nematodes and *Beauveria bassiana* (Deuteromycotina: Hyphomycetes) in soilborne larvae of *Spodoptera exigua* (Lepidoptera: Noctuidae). Environ. Entomol. 20: 707-712

Barbercheck, M.E. and Kaya, H.K. 1990. Interactions between *Beauveria bassiana* and the entomogenous nematodes, *Steinernema feltiae* and *Heterorhabditis heliothidis*. J. Invert. Pathol. 55: 225 – 234

Barbercheck, M.E. 1986. Control of *Meloidogyne javanica* in dormant grapevine nursery stock (research note). Phytophylactica 18: 39 – 40

Barbercheck, M.E. and Heyns, J. 1986. Occurrence of *Xiphinema* in South African plant improvement vineyards. Phytophylactica 18: 59 – 61

Barbercheck, M.E. and Von Broembsen, S.L. 1986. Effects of soil solarization on plant-parasitic nematodes and *Phytophthora cinnamomi* in South Africa. Plant Disease 70: 945 – 950

Barbercheck, M.E., Smith, P.C., and Heyns, J. 1985. Occurrence and distribution of *Xiphinema* in vineyards of the Bree River Valley. Phytophylactica 17: 27 - 30.

NON-PEER REVIEWED PUBLICATIONS:

Neher, D.A.; Barbercheck, M.E. Soil microarthropods and soil health: Intersection of decomposition and pest suppression. Preprints 2019, 2019110093 (doi: 10.20944/preprints201911.0093.v1).

BOOK CHAPTERS:

Barbercheck, M. Agricultural Extension, In: Sachs, C., Sexmith, K., Jensen, L. (Eds.), *Gender and Agriculture Handbook*, Routledge. Submitted 14 July 2019, In review

Stuart, R.J., M.E. Barbercheck, P.S. Grewal. 2015. Entomopathogenic Nematodes in the Soil Environment: Distributions, interactions and the influence of biotic and abiotic factors. Ch. 4, pp. 97-136. In "*Nematode Pathogenesis of Insects and Other Pests - Ecology and Applied Technologies for Sustainable Plant and Crop Protection.*" R. Campos-Herrera, ed., Springer.

Mueller, M. N. Creamer, M. Barbercheck, M. Bell, C. Brownie, A. Collins, K. Fager, S. Hu, L. Jackson, S. Koenning, N. Kuminoff, M. Linker, F. Louws, S. Mellage, D. Monks, D. Orr, C. Raczkowski, J. Seem, C. Tu, M. Waggoner, R. Walters, A. Wossink. W. Zhang. 2006. Long-Term, Large-Scale Systems Research Directed Toward Agricultural Sustainability. Pp. 79-98 in: Long-term Field Experiments in Organic Farming (J. Raupp, C. Pekrun, M. Oltmanns, U. Köpke, Eds.) ISOFAR Scientific Series No 1. Verlag Dr. Köster, Berlin, Germany. ISBN-Nr. 3-89574-590-1

Barbercheck, M. E. and Hoy, C. W. 2005. A systems approach to conservation of nematodes. In: Grewal P. S., Ehlers, R.-U. and David, Shapiro-Ilan, D. I. (Eds), *Nematodes as Biocontrol Agents*, CABI Publishing, CAB International, Wallingford, Oxon, UK, p. 331-347

Barbercheck, M. and L. D. W. Duncan. 2004. Abiotic Factors, pp. 309-343 in "Nematode Behaviour" (R. Gaugler, A. Bilgrami, eds.) CABI

Barbercheck, M. E. *Mixed Messages: Images of Women and Men in Advertisements in Science*. 2001 and 2008. Chapter in Wyer, M.B., M. E. Barbercheck, D. Cookmeyer, H. Ozturk, M. Wayne. *Women in Science and Technology*. Routledge. 1st edition and 2nd edition.

Neher, D. and M. E. Barbercheck. 1999. Diversity and Function of Soil Mesofauna. pp. 27-47 in: *The Biodiversity in Agroecosystems*, W. Collins & C. O. Qualset (eds.). CRC Press LLC, Boca Raton, FL

Barbercheck, M. E. & L.C. Millar. 1999. Environmental Impacts of Entomopathogenic Nematodes Used for Biological Control in Soil. pp. 287-308 In: *Nontarget Effects of Biological Control* (P. Follett & J. Duan, eds). Kluwer Academic Publ.

BOOKS:

Sachs, C.E., M.E. Barbercheck, K. Brasier, N.E. Kiernan, A.R. Terman. 2016. *The Rise of Women Farmers and Sustainable Agriculture*. 202 pp. University of Iowa Press.

Wyer, M., M. Barbercheck, D. Cookmeyer, H. Ozturk, M. Wayne (Editors). 2014. *Women, Science, and Technology: A Reader in Feminist Science Studies*, 3rd Edition. 600 pp. Routledge Taylor & Francis Group
<http://www.routledgejournalhealth.com/books/details/9780415521109/>

Wyer, M.B., M. E. Barbercheck, D. Cookmeyer, H. Ozturk, M. Wayne. 2008. *Women, Science and Technology: A reader in feminist science studies* 2nd Edition. Routledge, NY

Wyer, M.B., M. E. Barbercheck, D. Cookmeyer, H. Ozturk, M. Wayne. 2001. *Women, Science and Technology: A reader in feminist science studies*. 1st Edition. Routledge, NY. 376 pp.

EXTENSION BULLETINS, FACT SHEETS, NEWSLETTERS:

2019

Cornelisse, S., Borrelli, K., Baraibar, B., Barbercheck, M. 2019. *Organic Grain Crop Enterprise Budgets*. <https://extension.psu.edu/organic-grain-crop-enterprise-budgets>

2018

Barbercheck, M. 2018. Management of Stored Grain Pests in Organic Systems. Field Crop News, Nov. 1, 2018. https://extension.psu.edu/management-of-stored-grain-pests-in-organic-systems?j=296585&sfmc_sub=35519620&l=159_HTML&u=5764383&mid=7234940&jb=10&utm_medium=email&utm_source=MarketingCloud&utm_campaign=FAFC_2018_OCT_31_GN_EM_+Field+Crop+News+++20181031&utm_content=FAFC_2018_OCT_31_GN_EM_+Field+Crop+News+++20181031&subscriberkey=0030W00003P0ySiQAJ

Barbercheck, M. 2018. Boyd Station Serves Growing Market for Processed Organic Soybeans. Field Crop News 20 September 2018. https://extension.psu.edu/boyd-station-serves-growing-market-for-processed-organic-soybeans?j=275291&sfmc_sub=35519620&l=159_HTML&u=5398408&mid=7234940&jb=10

Barbercheck, M. 2018. Successful Transition to Organic at Banner Farm. Field Crop News. 6 Sept. 2018. https://extension.psu.edu/successful-transition-to-organic-at-banner-farm?j=268553&sfmc_sub=35519620&l=159_HTML&u=5277217&mid=7234940&jb=10

Barbercheck, M. New fact sheet on stored grain pest management. Field Crop News. May 2, 2018.

Barbercheck, M. 2018. Management of Stored Grain Pests in Organic Systems. PSU Extension Fact Sheet <https://extension.psu.edu/management-of-stored-grain-pests-in-organic-systems>

Barbercheck, M. 2018. Thinking About Planting? Try Avoiding Seedcorn Maggot. Field Crop News. April 4, 2018. https://extension.psu.edu/thinking-about-planting-try-avoiding-seedcorn-maggot?j=208173&sfmc_sub=35519620&l=159_HTML&u=4014619&mid=7234940&jb=11

2017

Schmidt, E., K. Regan, and M. Barbercheck. 2017. Seedcorn Maggot as a Pest of Corn and Other Large-Seeded Crops. Updated Fact Sheet. <http://ento.psu.edu/extension/factsheets/seedcorn-maggot-as-a-pest-of-corn-and-other-large-seeded-crops>

2016

Barbercheck, M. E. 2016. Contributed to Chapter 4: Soil Health and Fertilizer Management, pp. 79 – 110, in the Penn State Master Gardener Manual. 2016. 808 pp. AGRS-139.

Barbercheck, M., W.S. Curran. 2016. Ch. 11. Organic Crop Production. Pp 137 – 146 in: The Agronomy Guide 2015-2016. AGRS026.

2015

Barbercheck, M., S. Pickel, B. Schildt, C. Thomas. 2015. Vegetable Integrated Pest Management with an Emphasis on Biocontrol. A Guide for Growers in the Mid-Atlantic. Penn State Extension AGRS-128.

Barbercheck, M., Tooker, J. 2015. Ch. 8. Insect Management. PP 151-162 in: PSU Organic Crop Production Guide. C. White, M. Barbercheck, W. Curran (co-editors).

Barbercheck, M. 2015. Carabid Beetles: Your Allies on the Ground. March 2015 Newsletter, Pennsylvania Certified Organic. <http://www.paorganic.org/carbid-beetles-your-allies-on-the-ground>

White, C., M. Barbercheck, W. Curran (co-editors). 2015. Penn State Organic Crop Production Guide. AGRS-124

White, C., M. Barbercheck, T. DuPont, D. Finney, A. Hamilton, D. Hartman, M. Hautau, J. Hinds, M. Hunter, J. Kaye, J. La Chance. 2015. Making the Most of Mixtures: Considerations for Winter Cover Crops in Temperate Climates. Agroecology in Practice EEO166. Penn State Extension.

White, C., Barbercheck, M., Bates, B. 2015. Ch. 1 Introduction to organic farming and the national organic standards. Pp. 1 – 7 in: PSU Organic Crop Production Guide. C. White, M. Barbercheck, W. Curran (co-editors).

2014

Barbercheck, M. 2014. Brown's Ranch: Farming in Nature's Image to Regenerate Land, Productivity, and Quality of Life. Sustainable Agriculture Newsletter, Spring 2014. <http://extension.psu.edu/susag/news>

Ellis, K., M.E. Barbercheck. 2014. Bees and Cover Crops: Using flowering cover crops for native pollinator conservation. PSU Entomology Fact Sheet. <http://ento.psu.edu/extension/factsheets/bees-and-cover-crops>

2013

Barbercheck, M. 2013. Remembering Rachel Carson. Sustainable Agriculture Newsletter 10(1): Spring 2013. <http://extension.psu.edu/susag/news>

2012

Barbercheck, M. 2012. Organic Grower Network Tours Milton Grain Farm. Sustainable Agriculture Newsletter 9(1): Winter 2012. <http://extension.psu.edu/susag/news>

White, C., and Barbercheck, M. 2012. Managing Soil Health: Concepts and Practices. Agroecology in Practice Series #EE0026.

2011

Barbercheck, M. 2011. Biology and management of aphids in organic cucurbit production systems. eExtension.org, Organic Farming Resource Area.
<http://www.extension.org/pages/60000/biology-and-management-of-aphids-in-organic-cucurbit-production-systems>

Barbercheck, M. 2011. Organic Crop Meeting Focuses on Tillage, Pest Management Practices. Sustainable Agriculture Newsletter 8(3): Summer 2011.
<http://extension.psu.edu/susag/news>
<http://extension.psu.edu/susag/news/2011/June-2011/1-organic-crop-meeting>

Barbercheck, M. 2011. Organic Grower Network Focuses on Organic Grain Marketing. Sustainable Agriculture Newsletter 8(2): Spring 2011.
<http://extension.psu.edu/susag/news/2011>

Barbercheck, M. 2011. Organic Growers Meeting on Markets. Field Crop News Vol. 11, Issue 3, March 8, 2011. <http://fcn.agronomy.psu.edu/2011/fcn1103.cfm#e>

Barbercheck, M. 2011. Sign-up for NRCS funding program for organic farming underway. Field Crop News 11:07, April 26, 2011

Dempsey, M., Schipanski, M., Barbercheck, M. 2011. Penn State Organic Corn Variety Trial. Sustainable Ag Newsletter, Jan. 20, 2011.
<http://extension.psu.edu/susag/news/Jan-2011/4-organic-corn-variety-trial>

Dempsey, M., Schipanski, M., Barbercheck, M. 2011. Penn State Organic Corn Variety Trial. Field Crop News Vol. 11, Vol. 11, Issue 1, January 11, 2011.
<http://fcn.agronomy.psu.edu/2011/fcn1101.cfm#g>

Dempsey, M., Schipanski, M., Barbercheck, M. 2011. Penn State Organic Variety Trial. Organic Matters, PCO Quartely Newsletter Winter 2011, pp. 9 – 10.

Schipanski, M., Sandy, D., Barbercheck, M. 2011. Organic Corn Yields in a Drought Year. Organic Matters, PCO Quartely Newsletter Winter 2011, pp. 11, 22.

2010

Carvalho, C., T.P. Gareau, M. E. Barbercheck. 2010. Ground and Tiger Beetles (Coleoptera: Carabidae). PSU Entomology Fact Sheet.
<http://ento.psu.edu/extension/factsheets/ground-beetles>

Gareau, T.L.P., Smith, R. G., Barbercheck, M. E., Mortensen, D.A. 2010. Spider Plots: A Tool for Participatory Extension Learning. Journal of Extension. Volume 48 (5): 5TOT8, <http://www.joe.org/joe/2010october/tt8.php>

White, C., Barbercheck, M. 2010. UF024-Agroecology in Practice: Introduction to Organic Farming: A Growing Opportunity for Pennsylvania Farmers. PSU Ag Communications and Marketing. <http://pubs.cas.psu.edu/FreePubs/pdfs/uf024.pdf>

Barbercheck, M, B. Curran, J.M. Dillon. 2010. Organic Crop Production, Ch. 11 in: The Agronomy Guide. PSU COAS. <http://extension.psu.edu/agronomy-guide/cm/sec11>

2009

Brasier, K. M. Barbercheck, N. E. Kiernan, C. Sachs. 2009. Pennsylvania Women's Agricultural Network Addresses Extension Needs of Women Farmers. Field Crop News 9: 05 (April 7, 2009). <http://fcn.agronomy.psu.edu/2009/fcn0905.cfm#g>

Brasier, K. M. Barbercheck, N. E. Kiernan, C. Sachs. 2009. Pennsylvania Women's Agricultural Network Addresses Extension Needs of Women Farmers. Vegetable & Small Fruit Gazette (April 2009, pp. 12-13).

Gareau, T.P., N. DeBarros, M. Barbercheck, D. Mortensen. 2009. UFO23-Conserving Wild Bees in Pennsylvania. PSU Ag Communications and Marketing. <http://pubs.cas.psu.edu/FreePubs/pdfs/uf023.pdf>.

Linker, H. M., D.B. Orr, M. E. Barbercheck. 2009. Insect Management on Organic Farms. Organic Production Series. 36 pp. North Carolina Cooperative Extension AG-659W-09

2009 – eXtension.org articles

eOrganic Leadership Team

http://www.extension.org/pages/eOrganic_Leadership_Team_and_Group_Leaders

(verified 10 February 2009)

Articles at eOrganic.info or publication at eXtension. org

<http://www.extension.org/organic%20production> (verified 9 February 2009)

What is Organic Farming? D. Treadwell, J. Riddle, M. Barbercheck, D. Cavanaugh-Grant, E. Zaborski . <http://www.extension.org/article/18655> (verified 9 February 2009)

Pest Management in Organic Farming Systems: The NOP Standard

<http://eorganic.info/node/913>

<http://www.extension.org/article/18904> (verified 10 February 2009)

Ecological Understanding of Insects in Organic Farming Systems

<http://eorganic.info/node/2681>

<http://www.extension.org/article/18906>

Decomposers in Organic Farming Systems <http://eorganic.info/node/3143>

<http://www.extension.org/article/18905> (verified 10 February 2009)

Pollinators in Organic Farming Systems <http://eorganic.info/node/3153>

<http://www.extension.org/article/18926> (verified 10 February 2009)

Natural Enemies in Organic Farming Systems <http://eorganic.info/node/3142>
<http://www.extension.org/article/18907>

How Insects Damage Plants <http://eorganic.info/node/3151>
<http://www.extension.org/article/18903> (verified 10 February 2009)

Plant Defenses Against Insects <http://eorganic.info/node/3150>
<http://www.extension.org/article/18913>

Insect Life Cycles <http://eorganic.info/node/3152>

Insect Populations <http://eorganic.info/node/3149>
<http://www.extension.org/article/18912>

Factors that Influence the Size of Insect Populations <http://eorganic.info/node/3148>
<http://www.extension.org/article/18569> (verified 9 February 2009)

Diversity, Stability, and Productivity of Insect Populations <http://eorganic.info/node/3147>
<http://www.extension.org/article/18534> (verified 9 February 2009)

Ecological Succession <http://eorganic.info/node/3146>
<http://www.extension.org/article/18911> (verified 10 February 2009)

Insects in Ecological Communities <http://eorganic.info/node/3145>
<http://www.extension.org/article/18908>

Practices and Tactics for Insect Pest Management in Organic Farming Systems
<http://eorganic.info/node/915>

Using Diversity as a Pest Management Tool
<http://eorganic.info/node/917>
<http://www.extension.org/article/18910> (verified 10 February 2009)

Biological Control of Insect Pests <http://eorganic.info/node/919>
<http://www.extension.org/article/18931>

Insect-Parasitic Nematodes for the Management of Soil-Dwelling Insect Pests
<http://eorganic.info/node/2527>

Viruses as biological control agents of insect pests (J. McNeil; MB solicited and edited)
<http://eorganic.info/node/2525>

Fungi for the biological control of insect pests (J. McNeil; MB solicited and edited)
<http://eorganic.info/node/2597>
<http://www.extension.org/article/18928>

Praying mantids (J. Lelito; MB solicited and edited) <http://eorganic.info/node/2623>
<http://www.extension.org/article/18930>

Physical and Mechanical Pest Controls <http://eorganic.info/node/920>
<http://www.extension.org/article/18929>

Allowable Insecticides for Organic Farming Systems
<http://eorganic.info/node/921>

Insect Pest Management: Differences Between Conventional and Organic Farming Systems (with Ed Zaborski)
<http://eorganic.info/node/2699>

Additional Resources for an Ecological Understanding of Insects in Organic Production Systems <http://eorganic.info/node/3144>

2008

Barbercheck, M, D. Calvin, B. Curran. 2008. Organic Crop Production, Ch. 11 in: The Agronomy Guide. PSU COAS.

Sánchez, E. and M. Barbercheck. 2008. Periodical Cicada Damage on Blueberries. Vegetable & Small Fruit Gazette (July 2008, pp. 26-27).

pre-2008

Barbercheck, M. White Grubs in Pastures. Feb13, 2007 Field Crop News
http://fcn.agronomy.psu.edu/2007/white_grubs_in_pasture.pdf

Barbercheck, M, D. Calvin, B. Curran. 2006. Organic Crop Production, Ch. 11 in: The Agronomy Guide. PSU COAS.

Barbercheck, M. 2004. Penn State Studies Transition to Organic Agriculture
Field Crop News 4 (12): 4-5

Barbercheck, M. 2004. Organic Corn and Soybeans for Exceptional Organic Milk
Field Crop News 4 (12): 5-6

Barbercheck, M.E. 2004. Entomopathogenic Nematodes in Biological Control. PSU Extension Fact Sheet.

Barbercheck, M. 2003. Pasture Monitoring on Provident Farm. Passages 44: 16-18.

Creamer, N. & M. Barbercheck. 2001. Worthwhile spending to nurture rural N.C.
Raleigh News and Observer 21 Sept. 2001.

Barbercheck, M.E. 1993. Insect-parasitic nematodes for biological control. Carolina Farm Stewardship Assoc. Stewardship News 13 (3): 3.

Barbercheck, M.E. 1984. Nematodes - the nurseryman's nemesis. The South African Nurseryman, May 1984: 14 - 15.

Websites:

Penn State Extension Sustainable Agriculture

<http://extension.psu.edu/susag>

College of Agricultural Sciences Organic Agriculture

<http://agsci.psu.edu/organic>

Balancing Pest Management and Soil Quality in a Transitional Organic System

<http://TransToOrg.cas.psu.edu>

Weed Management, Environmental Quality, and Profitability In Organic Feed and Forage Production Systems <http://agsci.psu.edu/organic/research-and-extension/organic-forage>

Improving Weed and Insect Management in Organic Rotational No-Till

<http://agsci.psu.edu/organic/research-and-extension/rotational-no-till>

INSTRUCTIONAL CONTRIBUTIONS:

2020

INTAD 820 International Agriculture and Development Seminar (Miller-Foster, Esker) Co-instructor, course to Costa Rica, 3 credits, 9 students, Spring Semester

2019

AGECO144 Principles and Practices of Organic Agriculture (Co-instructor with H. Karsten), 3 credits, 25 students, Fall semester

FOR 597 Global Agricultural Systems (Jacobsen) Co-instructor, lecture, Arthropod Management and IPM. 3 credits, 12 students, Fall Semester

Ent 530 Biological Control Seminar, 1 credit, 8 students, Spring Semester

2018

AGECO144 Principles and Practices of Organic Agriculture (Co-instructor with H. Karsten), 3 credits, 12 students, Fall semester

AGRO 28 Crop Production (Kemanian) Guest lecture, Introduction to organic agriculture, Fall semester, 40 students

FOR 597 Global Agricultural Systems (Jacobsen) Co-instructor, lecture, Arthropod Management and IPM. 3 credits, 9 students, Fall Semester

2017

AGECO144 Principles and Practices of Organic Agriculture (Co-instructor with H. Karsten), 3 credits, 35 students, Fall semester

AGRO 28 Crop Production (Kemanian) Guest lecture, Introduction to organic agriculture, Fall semester, 40 students

RSoc 508 Sociology of Agriculture (Sachs). Guest presentation, Working with women Farmers, Spring semester, 20 students

The role of gender in science and agricultural research (with Ed Rajotte). Gender Research and International Training Workshop, UP, PA June 4 – 23, 2017. (3 hrs) 11 Students.

Bridging disciplinary divides (w/Leif Jensen) Gender Research and International Training Workshop, UP, PA June 4 – 23, 2017. (3 hrs) 11 Students.

2016

AGECO144 Principles and Practices of Organic Agriculture (Co-instructor with H. Karsten), 3 credits, 35 students, Fall semester

AGRO 28 Crop Production (Kemanian) Guest lecture, Introduction to organic agriculture, Fall semester, 40 students

The role of gender in science and agricultural research (with R. Bates). Gender Research and International Training Workshop, UP, PA June 4 – 23, 2017. (3 hrs) 15 Students.

Bridging disciplinary divides (w/Leif Jensen) Gender Research and International Training Workshop, UP, PA June 4 – 23, 2017. (3 hrs) 15 Students.

2015

AGECO144 Principles and Practices of Organic Agriculture (Co-instructor with H. Karsten), 3 credits, 26 students, Spring semester

AGRO 28 Crop Production (Kemanian) Guest lecture, Introduction to organic agriculture, Fall semester, 40 students

2014

AGECO144 Principles and Practices of Organic Agriculture (Co-instructor with G. Malcom), 26 students, Spring semester

AGRO 28 Crop Production (Kemanian) Guest lecture, Introduction to organic agriculture, Fall semester, 40 students

ENT 530 Predator-Prey Interactions. Graduate Seminar, 1 credit, 15 students

2013

ENT 530 Diversity in Science. Graduate Seminar (with C. Grozinger), 11 students, Fall semester

ENT 520 Frontiers in Entomology. Guest lecture, Organic Agriculture (2 hours), 15 students,

Fall semester

AGECO144 Principles and Practices of Organic Agriculture
(Co-instructor with H. Karsten), 34 students, Spring semester

2012

ENT 520 Frontiers in Insect Science, 2 Guest lectures: Organic Agriculture, Fall semester

AGECO144 Principles and Practices of Organic Agriculture
(Co-instructor with H. Karsten), 30 students, Spring semester

INTAG 497A Comparing US/French Agricultural Systems (Jaenike)
Guest lecture, Introduction to Organic Agriculture (2 hrs), 13 students, Spring semester

2011

AGECO144 Principles and Practices of Organic Agriculture
(Co-instructor with H. Karsten), 25 students, Spring semester

AGRO 497a Multifunctional Cover Crops Seminar (co-instructor with Schipanski, Kaye)
5 students, Spring semester

2010

AGECO144 Principles and Practices of Organic Agriculture
(Co-instructor with H. Karsten), 12 Students, Spring semester

ENT 520 Frontiers in Insect Science, 2 Guest lectures: Soil Entomology; Sustainable
Agriculture

SOILS 71. Sustainable environments (J. Kaye). Guest laboratory: Soil Biology, 4 March
2010, 20 students

2008

AGECO/HORT 497A Principles and Practices of Organic Agriculture (co-taught with H.
Karsten and E. Sanchez), 17 students, Spring Semester

HORT 497A Organic Vegetable and Small Fruit Production (co-taught with E. Sanchez),
17 students, Fall Semester

2007

ENT202 Insect Connection – Guest lecture. Arthropods in the Soil Food Web, 75
students, 12 April 2007

AG 160 Ethics and Issues in Agriculture. Organic and sustainable farming. PSU Altoona, 2
April 2007, 25 students.

2006

ENT202 Insect Connection – Guest lecture. Arthropods in the Soil Food Web, 35 students, 28 March 2006, 35 students.

ENT202 Insect Connection – Guest lecture. Arthropods in the Soil Food Web, 50 students, 23 Nov. 2005, 35 students.

2005

ENT202 Insect Connection – Guest lecture. Arthropods in the Soil Food Web, 35 students, 23 March 2005, 35 students.

ENT202 Insect Connection – Guest lecture. Arthropods in the Soil Food Web, 50 students, 23 Nov. 2005, 35 students.

2004

Crop/Soil Science 412W/597E Soil Ecology – Guest lecture/laboratory on soil nematodes, Spring 2004, est. 15 students

2003

ENT202 Insect Connection – Guest lecture on soil arthropods, 5 Nov. 2003, 50 students

AGESS201 Agroecology - Guest lecture on soil arthropods, 29 October. 2003, 17 students

AGESS 495 Agroecology Summer Interns – Soil Ecology - Guest lecture/laboratory on soil microarthropods and nematodes, 5/22/03, 6 students; mentored research projects for 2 students over 10 week course (Maureen Copeland and Jeffrey Taylor)

Crop/Soil Science 412W/597E Soil Ecology – Guest lecture/laboratory on soil nematodes, Spring 2003, est. 15 students

ENT 543 Biological Control – Guest lecture on entomopathogenic nematodes, Spring 2003, est. 8 students

English 416 Science Writing - Guest lecture on women scientists, Spring 2003, est. 15 students

2002

Crop/Soil Science Producer Speaker Series: Challenges and opportunities for sustainable agriculture education, Fall 2002, est. 25 attendees

ENT 597K– Controversial Issues in Agriculture (with K. Hoover), Fall 2002, 7 students

PRE-2002: NCSU

Ent 591/791N - Soil Ecology (with S. Hu), Fall 2001

CS/Ent 620/820B - Issues in Bioethics (with T. Rufty, A. Weissinger), Spring 2001, 2002

MDS 210 - guest lecture on women in scientific advertising. 28 Sept. 2000, 27 Sept. 2001, 21 February 2002

Insect Nematology. Short Course on Insect Pathology and Microbial Control. University of Illinois, Champaign-Urbana, July 23-27, 2000.

Soil Biology. Sustainable Agriculture Internship. CEFS, Goldsboro. 26 June, 2000 & 28 June, 2001.

Biological Control. Sustainable Agriculture Internship. CEFS, Goldsboro. 5 July, 2000.

Plant Pathology 504 - Plant Nematology - Guest lecture on entomopathogenic nematodes, 31 March 2000, 2001

Insect Nematology. Short Course on Insect Pathology for Central America and Mexico. Tegucigalpa, Honduras, Dec. 6-11, 1999.

Entomology 590W/790W (MDS 495/595X) - Scientific Search for Sex Differences (with D. Cookmeyer), Fall 1999, Cancelled low enrollment

Plant Pathology 590A - Agriculture, Ethics, and the Environment, organized by J. Ristaino, guest lecture on Ecofeminism and the Gaia Hypothesis, Nov. 18, 1998

Entomology 791R - Insects and Plants, organized by K. Sorensen, guest lectures on Insect Pathogens and Entomopathogenic Nematodes in Pest Management , 1998, 1999, 2000, 2001

HSS 492 - Sem. Women's Studies, guest lecture on women in science, 19 Feb. 1998

MDS 302 - Cont. Sci. Tech. Values, guest lecture on women in science, 18 March 1998

MLS 601K - Contemporary Feminist Theory, Guest lecture on images of women in science, 10 Sept., 1997.

Entomology 501 - Insect Natural History, Soil biology exercises, Summer 1996, 1997, 1998, 2000, 2001

Entomology 690I - Advanced Topics in Soil Entomology (Seminar), Spring Semester 1992, 1996, 2000.

Entomology 591L - Forest Entomology, Guest laboratory on soil arthropods, Spring Semester 1996-2002

Entomology 591C - Gender Issues in Biological Science (Special Topics) Spring Semester 1995.

Entomology 520 - Insect Pathology, Guest lectures on Entomogenous Nematodes, Spring Semester 1995, 1997, 1999, 2000

Entomology 591C/MDS 595C - Gender Issues in Biological Science (Special Topics) Spring Semester 1994.

Entomology 690G- Microbial Control (with W. Brooks & J. Harper) (Seminar), Fall Semester 1993, 1997, 2001

Entomology 590V - Chemical Ecology of Insect/Plant Interactions (Special Topics), (with F. Gould, G. Kennedy) Spring Semester 1993

MDS 295F - Women & Gender in Science & Technology, Spring Semester 1997

ADVISORY ACTIVITIES

Graduate Theses Supervised (Names of students and types of degrees)

PSU

Brianna Flonc (MS, 2019)
Karly Regan (PhD, 2019)
Puneet Randhawa (MS, 2017)
Jermaine Hinds (PhD, 2017)
Katie Ellis, Entomology (MS, 2014)
Ariel Rivers (PhD, 2015)
Randa Jabbour, Ecology Program (PhD, 2009)
Bailey Klinestiver, Entomology (MS, 2005)

NCSU

Carmen Marie Greenwood (Ph.D.), 2004
Leah Millar (M.S.), 2000
Scott Costa (Ph.D.), 1999
Scot Hirsh (M.S.), 1996
Astrid Eben (Ph.D.), 1995

Membership on Graduate Degree Candidates' Committees (Names of students, types of degrees, graduate major)

PSU

Sarah McTish (MS), Entomology
Elizabeth Davidson-Lowe (PhD), Entomology
Hassani Hussein Karemera, (MS), Plant Pathology
Nursyafiqi Zainuddin, (PhD), Entomology
Genna Tesdell, (MS), Plant Pathology
Kirsten Pearson (PhD), Entomology
Elizabeth Rowan, (PhD), Entomology
Rebecca Champagne (MS, 2017), Plant Sciences
Samita Limbu (PhD, 2016), Entomology
Anna Busch (MS, 2016), Entomology
Freddy Magdama (PhD, 2017), Plant Pathology
Lina Castano-Duque (Ph.D., 2017), Plant Biology
Maggie Douglas (M.S.,2012, Ph.D. 2017), Entomology,
Naworaj Acharya (Ph.D.), 2016), Entomology
Ian Grettenberger (Ph.D., 2015), Entomology
Jennifer Hayden (Ph.D., 2016), Rural Sociology
Sulav Paudel (M.S., 2013), Entomology
Ben Crockett (Ph.D., 2012), Agronomy
Matt Ryan (Ph.D., 2010), Ecology
Tim Leslie (Ph.D., 2007) Entomology
Meredith Murray Ward (M.S., 2007) Crop and Soil Science
Steven Mirsky (Ph.D., 2008) Crop and Soil science
Adam Montri (M.S. 2005) Horticulture
Shawn Rummel (M.S., 2005, PhD) Ecology

Loren Byrne (Ph.D. 2005) PSU Ecology/Entomology

NCSU

Peter Hertl (Ph.D) Entomology, 2002
Gissella Vasquez, (M.S.) Entomology, 2002
Melissa Bell (M.S) Soil Science, 2002
Jeff Scott (M.S.) Entomology, 2001
Russ Bullock (Ph.D.) Plant Pathology, 2000
Robert Gilmer (M.S.) Entomology, 1999
Rob Hummel (Ph.D) Entomology, 1999
Sandra Wattimena (M.E.) Entomology, 1998
Mark Sisterson (M.S.) Entomology, 1997
Doug Sumerford (Ph.D.) Entomology, 1997
Kate Piatek (Ph.D.) Forestry, 1996
Bob Eaton (M.S.) Forestry, 1996
Inga Zasada (M.S.) Crop Science, 1995
Jeffrey Mahrer (M.S.), Plant Pathology, 1995
Randi Hansen (M.S.), Zoology, Duke University, 1991
Catherine Mannion (M.S.), Entomology (temporary), 1990

Post-doctoral Scientists

Imtiaz Ahmad
Barbara Bairabar Padro (w/ D. Mortensen)
Ebony Murrell (w/ Jason Kaye)
Matt Ryan, (w/ Bill Curran)
John Wallace (w/ Bill Curran)
Mac Burgess (w/Jason Kaye, Dave Mortensen)
Megan Schipanski (co-supervised with D. Mortenson, J. Kaye, Crop and Soil Science)
Tara Pisani-Gareau (co-supervised with D. Mortenson, Crop and Soil Science)
Richard Smith (co-supervised with D. Mortenson, Crop and Soil Science)
Matt Ryan (co-supervised with W. Curran, Crop and Soil Sciences)
Andy Hulting (co-supervised with D. Mortenson, Crop and Soil Science)
Osama Anas, 1994-96

EXTENSION ACTIVITIES:

2020

Barbercheck, M. 2020. Organic Research Flash Talks & Discussion Session. PASA Farming for the Future Conference, 8 Feb. 2020. 80-min workshop. Lancaster, PA

2019

Barbercheck, M. 2019. Introduction to Organic: Making a Successful Transition to Organic Crop Production. Agronomy Team In-Service Webinar. 25 November 2019.

Barbercheck, M. 2019. Managing soil health on urban farms. Homewood Historical Farm. Pittsburgh, PA. 13 July 2019. 35 attendees, 3 African American, 3 youth, 20 women.

Barbercheck, M., Gruver, J. 2019. Pest and weed management strategies for the transitioning producer. ASA-CSSA-SSSA Webinar and Podcast Series. 19 March 2019. 175 Attendees.

Barbercheck, M. 2019. Organic 101. A growing Opportunity for PA Farmers. Allegheny Co. Crops Day. Meadville, PA. 21 March 2019. 20 attendees, 2 women.

Barbercheck, M, Wallace, J., Hoover, R., Smyer, A., Esbenshade, W. 2019. Managing Organic Feed Grain Crops for Soil Health: Reduced-Tillage and Cover Crops. PASA Farming for the Future Conference, 9 Feb. 2019. 3-hr workshop. 30 attendees.

2018

Barbercheck, M. 2018. Women farmers sustaining agriculture. Pasto Museum Women in Agriculture Day. Pasto Museum, Rock Springs, PA. 22 September 2018. 15 attendees, 13 women, 2 men.

Barbercheck, M., Regan, K., Baraibar, B. 2018. Kazakhstan Farmer tour of organic research sites at Russell E. Larson Agricultural Research Center. 25 attendees. 17 September 2018.

Barbercheck, M. 2018. Organic Agriculture: A growing opportunity for Pennsylvania farmers. Farm Bureau Commodity Committee Meeting. Camp Hill, PA. 10 July 2018. 35 people.

Barbercheck, M. 2018. Sex vs Gender: Perceiving biases in visual communication. BioInnovate Africa/Penn State University Workshop “Gender integration and innovation: working with communities to build a more inclusive future. Addis Ababa, Ethiopia. 10 – 12 October 2018.

Mendum, R., Barbercheck, Whitmer, W. 2018. Co-organizer. BioInnovate Africa/Penn State University Workshop “Gender integration and innovation: working with communities to build a more inclusive future. Addis Ababa, Ethiopia. 10 – 12 October 2018.

Barbercheck, M. 2018. Soil Health and pest Management. Mid-Atlantic Fruit and Vegetable Convention. Hershey, PA. 31 January 2018.

Barbercheck, M, Baraibar, B., Mortensen, D. 2018. Putting cover crop mixtures to work: Lessons from 8 farms in PA and NY. PASA Farming for the Future Conference, 8 Feb. 2018. 4-hr workshop.

2017

Barbercheck, M. 2017. Organic 101: Opportunities and challenges for PA crop producers. PSU Extension Agronomy Team webinar. 8 Dec. 2017.

Barbercheck, M., Borrelli, K. 2017. Organic research and extension review. Agronomy Extension Team In-Service Workshop. 15 Nov. 2017. Howard, PA

Barbercheck, M., Regan, K., Murrell, E. 2017. Crop Management and Soil Health: Is Your Soil Alive? Agronomy Team Diagnostic Clinic workshop, Russell E Larson Research and Education Center, Rock Springs, PA 200

Barbercheck, M., K Regan. 2017. Pest and beneficial insects and Soil Health Workshop. The Student Farm at Penn State, University Park, PA

Barbercheck, M. 2017. No pesticides? No problem! Insect management in organic crops. 2017 Mid-Atlantic Crop Management School. Ocean City MD. 200+ attendees

Barbercheck, M. Fungal Endophytes: Fungi that Facilitate Farming. Penn State Extension Sustainable Agriculture Webinar Series focused on Cropping Strategies for Managing Soil Health. February 6th. 2017. 56 attendees

Curran, W., Esbenshade, W., Barbercheck, M. 2017. Managing Cover Crops with reduced tillage for soil health. Organizer. PASA conference. 3 Feb. 2017. 75 attendees.

Kaye, J, Ebony Murrell, Dave Mortensen, Mary Barbercheck. Mixing your cover crop cocktail. 3 Feb. 2017. PASA Conference. University Park, PA. 100 attendees.

Regan, K. and Mary Barbercheck. Argentinian Organic Farmer Delegation Visit. Insects in organic cropping systems. 13 June, 2017. Russell E. Larsen Research Center, Rock Springs, PA. 15 attendees. Extension Education Program

Barbercheck, M. No pesticides? No problem! Insect management in organic crops. 2017 Mid-Atlantic Crop Management School. Nov. 15, 2017. Ocean City MD. Extension Education Program. 200 attendees.

Barbercheck, M., Borrelli, K. Organic research and extension review. Agronomy Extension Team In-Service Workshop. 15 Nov. 2017. Howard, PA

2016

Barbercheck, M. Cover crop mixtures and insect-parasitic fungi in organic cropping systems. Organic Cropping Systems Field Day. 6 October 2016. Charvin Farm, Mifflin, PA. 9:00 am – 2:00 pm.

Barbercheck, M. Co-organizer (w/Katie Miller). USAID East Africa Delegation visit to discuss research and extension on cover crops, reduced tillage, and soil health in organic cropping systems. 10 October 2016. 11:00 am – 3:00 pm, Russell E. Larsen Research Center, Rock Springs, PA.

Barbercheck, M. Co-organizer (w/ Rick Carr, Rodale Institute). Argentinian Organic Farmer Delegation Visit to view research on cover crops, reduced tillage, and soil health in organic cropping systems. June 14, 2016. 10:00 am – 3:30 pm, Russell E. Larsen Research Center, Rock Springs, PA.

2015

Barbercheck, M.E. 2015. Dung Beetles and Wormers. The Forum at the International Livestock Expo, Harrisburg, PA. 2 October 2015.

Barbercheck, M.E. 2015. Entomology in organic reduced-tillage and cover crop research. PASA Soil Management Summer Conference. 6 August 2015. Russell E. Larsen Agricultural Research Center.

Regan, K. and M.E. Barbercheck. 2015. Entomology in organic reduced-tillage and cover crop research. Field and Forage Crop Team In-Service. Russell E. Larsen Agricultural Research Center. 7 July 2015.

White, C., Hunter, M., Hinds, J., LaChance, J. Barbercheck, M.E, Kaye, J., Mortensen, D., 21 Oct 2014. Using cover crop mixtures to achieve multiple goals on the farm. Webinar. <http://www.extension.org/pages/71186/using-cover-crop-mixtures-to-achieve-multiple-goals-on-the-farm-webinar#.VTZToJN12mQ>

Barbercheck, M.E. and Mortensen, D.A. 2015. Organic reduced-tillage and cover crop research. Field day organized for agricultural delegation from Argentina. Russell E. Larsen Agricultural Research Center. 18 June 2015. 24 attendees.

Barbercheck, M.E. 2015. Soil health assessment: What are some of the "alternative" soil tests and what do they measure? Crop Management Webinar Series. 23 February 2015. 49 attendees.

2014

Barbercheck, M.E., 2014. Assessment of Biological Soil Health. Field and Forage Extension Team In-Service. State College, PA. Nov. 7, 2014. 20 attendees, 3 women.

LaChance, J. M. Hunter, J. Hinds, C. White, J. Kaye, D. Mortensen, M. Barbercheck. 2014. Using Cover Crop Mixtures to Achieve Multiple Goals on the Farm. eOrganic Webinar Series. 350 attendees.
<http://www.extension.org/pages/71186/using-cover-crop-mixtures-to-achieve-multiple-goals-on-the-farm-webinar#.VEfBHefR0II>

Barbercheck, M.E. 2014. Assessment of Biological Soil Health. Gettysburg Young Farmers Twilight Field Walk. Brown Valley Farm, Littlestown, PA (Adams Co.) 22 August 2014. 50 attendees, 2 women.

Barbercheck, M.E., Hinds, J. 2014. Preserving Beneficial Predators in the Home Garden. Ag Progress Days. 14 August 2014. 50 attendees, 20 women.

Barbercheck, M.E. 2014. Biological Soil Health. Western No-Till Alliance Conference, Meadville, PA 25 March 2014. 75 attendees, 3 women.

Barbercheck, M.E. 2014. Soil Health Assessment Western No-Till Alliance Conference, Meadville, PA 25 March 2014. 75 attendees, 3 women.

Barbercheck, M.E. 2014. The Soil Food Web and Pest Management. Mid-Atlantic Fruit and Vegetable Convention. Hershey, PA. January 30, 2014. 200 attendees. 100 women. Proceedings, pg. 210-212.

Barbercheck, M.E. 2014. Biological Soil Health: The soil food web and pest management. Potter Co. Crops Conference. January 24, 2014. Ulysses, PA. 75 attendees, 3 women.

Barbercheck, M.E. 2014. Biological Soil Health: The soil food web and pest management. Lancaster Co. Crops Conference. January 16, 2014. Lancaster, PA. 150 attendees. 3 women.

2013

Barbercheck, M.E. 2013. Organic Systems Research. Keystone Soils and Crops Conference, Oct. 29, 2013. Grantville, PA. 20 attendees.

Barbercheck, M.E. 2013. Beneficial arthropods. *Cocktails & Crimpers*: Cover Crop Innovations for Low-Input Soy, Corn & Wheat Production. Sept. 11, 2013, Russell E. Larson Research and Education Center, Rock Springs, PA. 15 attendees.

Barbercheck, M.E., Tooker, J.F. 2013. Soil Health concepts and Assessment in Agronomic Cropping Systems. Crop Management Diagnostic Clinic. Rock Springs, PA. July 16-17, 2013. 200 attendees.

Barbercheck, M.E. 2013. Improving soil fertility in the high tunnel. At PA-WAgN event, "Organic Vegetable Production: From Seeds to Sales." Blackberry Meadows Farm, Natrona Heights, PA, 9 April 2013. <http://agsci.psu.edu/wagn/events/organic-vegetable-production-from-seeds-to-sales>. 10 attendees.

Barbercheck, M. E., Douglas, M. 2013. Invertebrate pests and their natural enemies in high-residue, conservation tillage cropping systems. Cover Crop Innovations Webinar Series. 12 March 2013. <http://extension.psu.edu/cover-crops/webinars/recordings/barbercheck-mar11>
45 attendees

2012

Barbercheck, M.E. 2012. Approaches to Insect Management in Sustainable Cropping Systems. Fertrell Conference, "Health From The Ground Up". Bird In Hand, PA. Dec. 17-18. 2012. 60 attendees, 6 women.

Barbercheck, M.E. 2012. Entomology Display. Ag Progress Days, Rock Springs, PA. Aug. 14 and 16, 2012.

Barbercheck, M.E. 2012. Sustainable Cropping Systems Tour. Ag Progress Days, Rock Springs, PA. Aug. 14 – 16, 2012.

Barbercheck, M. E. 2012. Cropping Systems Tour, Ag Progress Days, Aug. 14-16. Rock Springs, PA.

Barbercheck, M.E. 2012. You Can Get Good Help: Beneficial Insects for Your Garden. FarmFest, Aug. 4, 2012. Centre Hall, PA. (with Ariel Rivers and Katie Ellis). 29 participants, 14 women

Barbercheck, M.E. 2012. Insect Predators in the Reduced Tillage Organic Systems Experiment. NE SARE Administrators' Summer Tour. Rock Springs, PA. July 25, 2012. 60 attendees. (with Ariel Rivers).

Barbercheck, M.E. 2012. Reduced Tillage Organic Cropping System Field Day. Ed Arnold/Kirby Reichert Farm. July 24, Harrisburg, PA. 22 attendees, 2 women. (with Ron Hoover).

Barbercheck, M. E. 2012. Pest and Beneficial Insects. PSU Center for Sustainability Community Gardens. State College, PA. June 30, 2012. 8 attendees, 4 women.

Barbercheck, M. E. 2012. Transition to Organic. Heritage, Organic and Specialty Crop Production Twilight Tour, Rock Springs, PA. June 28, 2012. 28 attendees, 8 women. Media coverage: <http://www.lancasterfarming.com/Research-Supports-Growing-Interest-in-Wheat->

Barbercheck, M.E. 2012. The Power of Predators. Strategies for Soil Health and Nutrient Conservation Research Tour. Rock Springs, PA. June 27, 2012. 100 attendees, 25 women. (with Ariel Rivers, Maggie Douglas, John Tooker).

Barbercheck, M.E. 2012. From the Ground Up! Building soil sustainability and productivity for abundant and healthy crops. RC&D Workshop, Bare Foot Organic Farm, Lebanon, PA. June 21, 2012. 35 attendees.

Barbercheck, M.E. 2012. Pest and Beneficial Insects in Organic No-Till Systems. RC&D Organic No-Till Workshop. April 3, 2012. Dauphin, Dauphin Co., PA. 20 attendees. 5 women, 2 youths.

Barbercheck, M.E. 2012. Insect and weed identification. RC&D Organic No-Till Workshop. April 3, 2012. Dauphin, Dauphin Co., PA. 20 attendees. 5 women, 2 youths (with Bill Curran).

Barbercheck, M.E. 2012. Organic no-till research in the NE US. RC&D Organic No-Till Workshop. April 3, 2012. Dauphin, Dauphin Co., PA. 20 attendees. 5 women, 2 youths (with Matt Ryan, Bill Curran, Jeff Moyer).

Barbercheck, M.E. 2012. Soil Health. RC&D Transition to Organic Agriculture Workshop, Village Acres Farm, Juniata Co., PA. March 13, 2012. 25 attendees. 5 women.

Soil Assessment and Management. PASA Preconference Workshop. 2 February 2012. Organized with C. White, T. DuPont. 100 attendees, 10 women.

Barbercheck, M.E. 2012. The Ground Crew – Soil Biology. Lancaster County Crops Conference, Lancaster, PA. Jan. 19, 2010. 200 attendees, 5 women.

2011

Barbercheck, M.E. 2012. The Ground Crew – Soil Biology. Lancaster County Crops Conference, Lancaster, PA. Jan. 19, 2010. 200 attendees, 5 women.

Barbercheck, M. E. 2011. Soil Insects. Organic Vegetable Intensive, December 8, 2011 The Fowler Center, Bethlehem, PA. 45 attendees, 20 women.

Barbercheck, M. E. 2011. Soil health and sustainability. New England Vegetable and Fruit Conference, Manchester, NH from December 13-15, 2011. 200 attendees, 100 women.

Barbercheck, M.E., White, C.M. 2011. Soil Health on Your Farm: Concepts, Management and Assessment. 2011 Women in Sustainable Agriculture Conference. Nov. 6-8, 2011. State College, PA. 30 attendees, 30 women.

Barbercheck, M. E. 2011. Practical approaches to ecological insect management. Invited presentation. Seeding the Future Conference, Dickinson College, Carlisle, PA. October 15, 2011. 40 attendees, 30 women.

Soil Assessment and Management. PASA Preconference Workshop. 3 February 2011. Organized with C. White. 24 attendees, 10 women.

2010

Soil Assessment and Management. PASA Preconference Workshop. 3 February 2011. Organized with C. White. 24 attendees, 10 women.

Hands-On Biocontrol. New Holland Vegetable Day. New Holland, PA. (with Wade Esbenshade). 17 January 2011. 50 attendees, 45 Amish, 5 women.

Barbercheck, M. E. 2010. Organic Cropping Systems Research. Ag Council Legislative Tour. Russell E. Larson Ag Research Center. September 23, 2010. 120 attendees. (with D. Mortensen and J. Kaye)

Barbercheck, M.E. 2010. Reading the Farm: Insects. 3-day on-farm workshop, 9 August – 11 August, 2010. 25 participants. Chambersburg, PA. Co-organized with Charlie White.

Barbercheck, M. 2010. Soil and sustainable agriculture. NRCS-NJ Soil Health Conference, Mt. Laurel, NJ. March 9, 2010. 250 attendees.

Barbercheck, M., T. Pisani Gareau, R. Smith, D. Mortensen, J. Kaye, N.E. Kiernan, J. Harper. 2010. Weed management, environmental quality and profitability in organic feed and forage production systems. The Organic Research Forum at the MOSES 21st Annual Organic Farming Conference. Feb. 24-27, 2010, La Crosse, WI. p.25

Building Pest Resistant Soils. Central PA Crops Conference, Altoona, PA. 29 January, 2010.

Managing Beneficial Insects - Soil quality and IPM. New Holland Vegetable Day, January 18, 2010, Yoder's Restaurant, New Holland, PA. (With Wade Esbenshade, PDA). 50 attendees (10 women)

2009

The Ground (Beetles) Beneath Your Feet (With Tara Pisani Gareau, Rich Smith). 16 September 2009. Agroecology Day, Rock Springs, PA. 90 HS students.

Insect Management at the PSU Community Garden. 11 July 2009.

Weed Suppression & Biodiversity through Cover Crops and Field Edge Plants. 17 June 2009. 39 attendees, 19 women, 20 men.

Hands-on IPM and Biocontrol. PASA Pre-Conference Workshop (With Cathy Thomas, Wade Esbenshade, Tracey Olsen). Feb. 5, 2009. 20 attendees, 15 women

Weed School. PASA Pre-Conference Workshop (With Bill Curran, Dave Mortensen, Ron Hoover), Tracey Olsen). Feb. 4, 2009. 40 attendees, 15 women

Entomopathogenic Nematode Biology and Ecology. Invited Plenary Speaker. Virginia Biological Farmer's Annual Conference. Feb. 27-28, 2009. Richmond, VA. 400 people.

Organic Food Production, Characteristics and Marketing (with Lynne Brown). Extension Spring In-Service. March 3, 2009. UP, PA. 12 people, 11 women

2008

Barbercheck, M. Organic 101: Soil Management. SARE New American Farm

Conference, March 25-27, 2008. Kansas city, MO (Invited)

Barbercheck, M. Organic weed management: Balancing pest management and soil quality in a transitional system. SARE/IOP Preconference: Growing the Organic Portfolio. March 24-25, 2008. Kansas City, MO (Invited)

Pre-2008

PA-WAgN: Diversifying Approaches and Clientele. Crop Management Extension Group In-Service, University Park, Nov.1 – 2, 2007.

Beneficial Insects. PA Crops and Soils Conference. Grantville, PA. October 24, 2007.(40 people, 3 women)

Biological Soil Quality. PA Project Grass Rotational Grazing Field Day. Blue MountainView Farm. Annville, PA (Lebanon Co.) Sept. 12, 2007. (100 people, 10 women)

Soil Quality Workshop. Ron Gargas Organic Farm, Lawrence Co., WAgN Field Day. August 1, 2007. (50 people, 20 men, 30 women)

Sustainable and Organic Agriculture. Ag in the Classroom. 15 July 2007. Centre Co., PA. (65 people, 50 women, 15 men)

Organic Ag Field Day. June 13, 2007. Rock Springs Agronomy Farm (60 people, 30 men, 30 women)

Cover crops and life in the soil. Cover Crop Research and Management Summit, June 5, 2007, Rock Springs Agronomy Farm. 100 people (75 men, 25 women)

IPM Advisor Board, June 1, 2007. Transition to Organic Production. 20 people (15 men, 5 women)

CMEG Spring In-Service, April 4, 2007, 9:30 am – 3:30 pm, Conference Room, PDA Livestock Evaluation Center, Rock Springs, PA (I organized program)

Meeting the Needs of Diverse Audiences: PA-WAgN. Extension Spring In-Service, 2007. University Park, PA (5 attendees, 1 woman).

Farm Women in Transition. Ho-Crawf Dairy, Rome, Bradford Co. 10/19/2006. (50 attendees, 48 women)

Soil Quality and Arthropods in Pasture Systems. Sept. 21, 2006. Pasture Walk, John G, Esh Farm, Quarryville, Lancaster Co., PA (45 attendees, 35 Anabaptist, 5 women, 1 African-American)

Manage Insects on Your Farm - Eco-strategies September 16, 2006. Small Farms Conference. Rutgers University, NJ (50 attendees, 5 Asian, 20 women)

What to Eat: Organic, Local, Sustainable? Cafe Scientifique at Penn Brewery, Pittsburgh, PA. Sept. 11, 2006. (60 attendees, 40 women)

Soil Biology. Penn State Agronomic Field Diagnostic Clinic. July 20, 2006. Agronomy Research Farm, Rock Springs, Centre Co. (80 attendees, all white guys, 2 women)

Soil Biology. Penn State Agronomic Field Diagnostic Clinic. July 18, 2006. Agronomy Research Farm, Rock Springs, Centre Co. (60 attendees, all white guys, 2 women)

Ecological Weed Day for Teachers, July 17, 2006, Rock Springs Agronomy Farm Pavilion, Centre County. (50 attendees)

Soil Biology. Integrating No-Till Practices and Cover Crop Use to Build Soil Quality and Manage Pests. July 14, 2006. Cedar Meadow Farms Field Day. Holtwood, Lancaster Co. 250+ attendees.

Insect IPM in Organic Systems. Advanced Organic Training for Agricultural Professionals. July 12 – 14, 2006. Ithaca, NY. (25 participants, 20 women, 1 African-American, 1 Hispanic).

Soil Quality Workshop: Concepts, Practice, Methods and Program Development. July 5 – 7, 2006. The Rodale Institute, Kutztown, PA. (45 attendees, 20 women)

Soil Biology. Integrating Cover Crops and Tillage to Manage Weeds and Build Soil Quality. June 28, 2006. Village Acres Farm, Mifflintown, Juniata Co. 75 attendees (@ 30 women).

Ecological Weed Management Field Day. June 13, Rock Springs Agronomy Farm, Centre Co. 50 attendees (@ 25 women)

Biorational Decisions: Bio-based IPM in Christmas Trees. March 15, 2006. Schuylkill Co. Extension Center. (25 attendees, 4 women)

Beneficial Insects: Know Your Allies. 15th Annual PASA Conference. February 3, 2006. University Park, PA. (100 attendees, about 35 women).

Organic Insect Management: Letting the Environment Work for You. Pennsylvania Vegetable Grower's Association. January 31, 2006. Harrisburg, PA (90 attendees, @ 30 women)

PA WAgN – Women's Agricultural Network. Pennsylvania's 2nd Annual Women In Agriculture Day, PA Farm Show, January 10, 2006, 10:00AM – 5:00PM, Pennsylvania Farm Show Complex, VIP Room, Harrisburg, PA

Biorational Decisions to Replace Synthetic Chemicals in Landscape Maintenance. Using Bioproducts in Vehicle and Landscape Maintenance Workshop, Oct. 13, 2005, Lancaster, PA. 20 attendees (5 women).

Insect-Parasitic Nematodes. Greenhouse IPM Workshop, Oct. 12, 2005. Black Creek Greenhouse, East Earl, PA. 65 attendees (35 women, 60 Mennonite)

Advanced Training in Organic Agriculture. NE SARE Extension Professional Development workshop, Sept. 19-22, 2005. Auburn, ME. 30 attendees. (15 women)

WAgN Field Day and Meeting of the Northeast WAgN group. Clarion Co., PA. Sept. 2005.

PASA/WAgN/PCO Field Day and Meeting of the Southwest WAgN group at Schwartz's Garden Dreams and Mildred's Daughters Urban Farms, Pttsburgh, PA. 31 August 2005.

Soil: The Hidden World Beneath our Feet. Using Soil Biology to Increase Farm Productivity Field Day. Rodale Institute, Kutztown, PA, Friday, July 22, 2005. (130 attendees, @ half women)

WAgN Field Day and meeting of the Central WAgN group at Friends Farm in Morrison's Cove (Blair County), PA. 19 July 2005

Sustainable Ag Listening Session, Somerset Co. 28 June 2005. 15 attendees.

Advanced Training in Organic Agriculture. NE SARE Extension Professional Development workshop, June 27 - 30, 2005. State College, PA. 20 attendees. (10 women)

WAgN Field Day and meeting of the Southcentral WAgN, Spiral Path Farm and MooEcho Dairy, Perry Co. 25 June 2005

PSU/PASA/PCO Ecological Weed Management Field Day (Transition to Organic Plots), Rock Springs, Centre County, 13 June 2005. 60 attendees (30 women).

PASA/WAgN Field Day and Meeting of the Southeast WAgN group at Elly Hushour's Patches of Star goat dairy in Nazareth, PA. 22 May 2005.

WAgN steering committee and advisory board meeting at Hameau Farm , Belleville, PA. April 27, 2005.

Organic Basics. 17 March 2005. Cooperative Extension In-Service. University Park, PA. 6 attendees (0 women)

Sustainable Ag Listening Session, March 14, 2005, Morgantown, PA. 13 attendees (1 woman)

PA Women's Ag Network display. Women in Agriculture Conference. Duncansville, PA. 10 March 2005. 75 attendees (70 women)

Advanced Training in Organic Agriculture. NE SARE Extension Professional Development workshop, Feb. 28 – April 3, 2005. Albany, NY. 20 attendees. (10 women)

Penn State Transition to Organic Cropping Study. Dec. 8, 2004, Lititz, PA. PCO Annual Meeting and Banquet. Presented for Dr, A. Hulting (author). 75 attendees (20 women)

Introduction to Organic Agriculture. Nov. 19, 2004. Agronomy Extension Agent In-Service. University Park, PA

Organic Basics: What to Organic Farmers Need? 2004 Fall CCA Continuing Education Seminar, Oct 29, 2004. Grantville, PA. 15 attendees

Farm Twilight Tour on Soil Biology, October 7, 2004, 5:30-7:30 pm, Eagle Point Farm, Kutztown, PA, Gail and Steve Ganser , 30 attendees, 6 women, 1 male teen

The soil food web and soil quality: Letting the soil work for you. Northeast Organic Farming Association Annual Meeting, Amherst, MA, Aug. 13, 2004, 75 attendees

Sustainable Ag Listening Session, Penn College, Williamsport, PA, 23 June 2004. 34 attendees.

Organic Basics. 17 March 2005. Cooperative Extension In-Service. University Park, PA. 6 attendees (0 women)

Sustainable Ag Listening Session, March 14, 2005, Morgantown, PA. 13 attendees (1 woman)

PA Women's Ag Network display. Women in Agriculture Conference. Duncansville, PA. 10 March 2005. 75 attendees (70 women)

Advanced Training in Organic Agriculture. NE SARE Extension Professional Development workshop, Feb. 28 – April 3, 2005. Albany, NY. 20 attendees. (10 women)

Women's Ag Network. Keep Farming First, Chester Co. PSU Great Valley, Malvern, PA 8 Feb., 2005. 15 attendees (15 women)

Penn State Transition to Organic Cropping Study. Dec. 8, 2004, Lititz, PA. PCO Annual Meeting and Banquet. Presented for Dr, A. Hulting (author). 75 attendees (20 women)

Introduction to Organic Agriculture. Nov. 19, 2004. Agronomy Extension Agent In-Service. University Park, PA

Organic Basics: What to Organic Farmers Need? 2004 Fall CCA Continuing Education Seminar, Oct 29, 2004. Grantville, PA. 15 attendees

Farm Twilight Tour on Soil Biology, October 7, 2004, 5:30-7:30 pm, Eagle Point Farm, Kutztown, PA, Gail and Steve Ganser, 30 attendees, 6 women, 1 male teen

The soil food web and soil quality: Letting the soil work for you. Northeast Organic Farming Association Annual Meeting, Amherst, MA, Aug. 13, 2004, 75 attendees

Sustainable Ag Listening Session, Penn College, Williamsport, PA, 23 June 2004. 34 attendees.

Funding Opportunities for Extension Educators. Agronomy Extension Agent In-Service. April 8, 2004. University Park, PA. 25 attendees.

Feb. 11, 2004, Soil Health, Soil Quality, Impacts on Residual Effects of Pesticide in No-Till. Centre Region Crops Day. Pleasant Gap, PA. 50 attendees (2 women)

Feb. 5, 2004, Soil Quality: Making the Soil Work for You. Southeast Pennsylvania Crops Conferences, Bucks Co. 80 attendees.

Feb. 3, 2004 Soil Quality: Making the Soil Work for You. Southeast Pennsylvania Crops Conferences, Montgomery Co. 200 attendees (10 women)

The role of soil organisms in pest management. 4 March, 2004. PSU Grounds staff in-service, University Park, PA. 70 attendees.

Conserving Beneficial Organisms in Soil, PSU Technical Service Pesticide Training, 6 January 2004, PSU. 50 attendees.

Insect Pest Management in Organic Systems. Lackawanna Co., Scranton, PA, 11 Dec. 2003. 15 attendees (4 women, 1 Asian man, 1 Asian woman)

Organic Research at PSU. Pennsylvania Certified Organic 2003 Annual Meeting, Dec 10, 2003. Millerstown, Perry Co., 75 attendees.

Agronomy Extension In-Service, Beneficial organisms in agricultural soil, November 20-21, 2003, PSU

Beneficial organisms in agricultural soil. Ag Progress Days, 19-21, 2003.

Possible Shifts in Soil Arthropod Communities with Monsanto YieldGard Rootworm Corn. 4th Annual Pest Management Tour. Southeast Research and Extension Center, Landisville, PA. 9 July 2002. 4 presentations, 200 attendees total.

Field Crop Diagnosis In-Service: Examining the Potential. 103 Buckhout Lab, June 19 and 20, 2003. Insect collection, sample preservation and shipping. Sorting soil insects.

Creating a Research, Extension and Education Program Focused on Organic Agriculture: Lessons from the Center Environmental Farming Systems. Introduction to Organic Production Workshop. April 1-2, 2003, State College, PA. 70 attendees.

The Soil Food Web. Sustainable Soils Conference, Pittsboro, NC, 27 February 2003. 100 attendees.

Soil Life: Putting it to work. PAES Lime & Fertilizer Conference. The Penn Stater, January 22, 2003. Workshop/presentation (with Mary Anne Bruns)

Beneficial Organisms in Agricultural Soil.. 3rd Annual Pest Management Tour. Southeast Research and Extension Center, Landisville, PA. 11 July 2002. 2 presentations, 50 attendees each.

Soil Biology and Ecology. NRCS Pasture Ecology Course. Raleigh, NC, 13-24 May, 2002. 30 attendees

Pests and Beneficial Organisms. SARE PDP Soil Management Train-the-Trainer Workshop, Raleigh, NC. Sept. 22-24, 1999.

Soil Biology and Quality. NRCS training seminar. Raleigh, NC. Sept. 21, 1999.

The Insect Parasitic Nematode Slide Set, National Workshop on Optimal Use of Insecticidal Nematodes in Pest Management, 8/29-30, 1999. Rutgers, NJ.

The Role of Soil Biodiversity in Agriculture. Invited presentation, Soil Quality Round-Up, NRCS, Raleigh, NC, Dec. 3-4, 1998 (B. Brock, Organizer).

Effect of continuous no-till culture on soil invertebrates and corn yield. Invited presentation. NC Small Grains, Corn, and Soybean Joint Conf. and Exhibit, Raleigh, NC, January 18-19, 1996.

Effect of continuous no-till culture on soil invertebrates and corn yield. Invited presentation. NC Small Grains, Corn, and Soybean Joint Conf. and Exhibit, Raleigh, NC, January 19, 1995.

Biological Control of Insects. Invited presentation. Peanut Field Day, Lewiston. NC, 8 September 1994.

Multitactic Management of Southern Corn Rootworm in Peanuts. N.C. Peanut Grower's Assoc., Williamston, N.C., 12 Nov. 1993.

Minimizing nematode problems in the nursery. Invited speaker. South African Nurseryman's Association, Pretoria, South Africa, 1984.

Phytosanitary measures for the management of plant- parasitic nematodes in nurseries. Invited speaker. Cape Association of Nurserymen, Stellenbosch, South Africa, 1984.

RESEARCH PRESENTATIONS: Abstracts and Titles

2020

Ahmad I., Jiménez-Gasco, M.D.M., Luthe, D., & Barbercheck, M. (2020). Mighty Microbes: The tri-trophic interactions of endophytic *Metarhizium* in maize. XXVIII Plant and Animal Genome, 2020, San Diego, CA, USA, Jan. 11-15, 2020.

2019

Barbercheck, M. 2019. Ecology of a multifunctional fungus, *Metarhizium robertsii*, in organic cropping systems. Invited seminar. Dept. of Plant Pathology and Environmental Microbiology, Penn State University. Sept. 30, 2019.

Ahmad, I., M. Jiménez-Gasco, D. S. Luthe, S. N. Shakeel, M. E. Barbercheck (2019). Endophytic *Metarhizium robertsii* promotes maize growth and suppresses insect growth by eliciting plant defense. ASPB Annual Conference, Plant Biology 2019, Aug. 3-7, 2019, San Jose, USA.

Ahmad, I., M. Jiménez-Gasco, D. S. Luthe, S., M. E. Barbercheck (2019). Endophytic *Metarhizium robertsii* Affects Maize Growth and Gene Expression and Growth of Black Cutworm. Society for Invertebrate Pathology/IOBC Annual Meeting, Valencia, Spain, July 29 – Aug. 1, 2019.

Barbercheck, M., Voortman, C. 2019. Conservation of *Metarhizium*, a multifunctional beneficial fungus, in agronomic crops. Eastern Branch Entomological Society of America Annual Meeting, Blacksburg, VA, March 9-12, 2019 (Invited).

Jabbour, R., Francis, C., Barbercheck, M., Ullman, K, Organic Agriculture Teaching and Learning in 2025: An Exercise in Visioning. (poster) June 18-21, 2019. University of Southern Idaho, Twin Falls, ID

2018

Ahmad, I., B. Flonc, M.E. Barbercheck, C. Mullen, D. S. Luthe, M. D. Jimenez-Gasco. 2018. Going underground: The ecology of a multifunctional fungus in an organic cropping system. NE Cover Crops Council Conference, State College, PA (Poster presentation). Nov. 15-16, 2018.

Ahmad, I., B. Flonc, M.E. Barbercheck, C. Mullen, D. S. Luthe, M. D. Jimenez-Gasco. 2018. Going underground: The ecology of a multifunctional fungus in an organic cropping system. OFRF Poster Session, PASA Farming for the Future Conference, UP, PA (Poster presentation). Feb. 8 – 10, 2018

Ahmad, I., Flonc, B., Barbercheck, M., Mullen, C., Jimenez-Gasco, M., Luthe, D. 2018. Going underground: The role of a beneficial fungus in organic cropping systems. Wild and Tamed Phytobiomes:21st Penn State Plant Biology Symposium, June 19-22, 2018. University Park, PA. (Poster presentation)

Barbercheck, M. 2018. Restructuring plant-associated arthropod composition. Workshop on "Manipulating phytobiomes: challenges and opportunities," Wild and Tamed Phytobiomes:21st Penn State Plant Biology Symposium, June 19-22, 2018. University Park, PA. (Invited oral presentation)

Barbercheck, M. 2018. Effects of cover crops on invertebrate pests and their natural enemies in conservation tillage systems. 2018 North Central Branch ESA Meeting, March 18-21, 2018, Madison, WI. Invited Symposium (Influence of Cover Crops on Crop Insect Management)

Barbercheck, M. 2018. Farming and fungi: Agroecosystem impacts on a multifunctional fungus in an organic cropping system. Wild and Tamed Phytobiomes:21st Penn State Plant Biology Symposium, June 19-22, 2018. University Park, PA. (Invited plenary presentation)

Barbercheck, M., T. Gareau, R. Smith, D. Mortensen. 2018. Using spider plots to understand multifunctionality of agroecosystems. Workshop on teaching organic agriculture. June 10 – 12, 2018. Ames, Iowa. Invited oral presentation.

Brasier, K., Neiner, P., Barbercheck, M. Sexsmith, K., Sachs, C., Whitley, H., Hoffelmeyer, M., 2018. Connecting Diverse Women Farmers Across the Rural-Urban Divide. USDA BFRDP PD Meeting, Washington, DC, Sept. 25, 2018, NIFA Award Number: 2017-70017-26848 (Poster presentation).

Flonc, B., Ahmad, I., Mullen, C., Barbercheck M.E. 2018. Can fungi make caterpillars picky eaters? Effects of endophytic *Metarhizium* on corn (*Zea mays*) and fall armyworm (*Spodoptera frugiperda*). 2018 Eastern Branch ESA Meeting, March 17-19, 2018, Annapolis, MD (Poster presentation).

Flonc, B., Ahmad, I., Mullen, C., Barbercheck M.E. 2018. Can fungi make caterpillars picky eaters? Effects of endophytic *Metarhizium* on corn (*Zea mays*) and fall armyworm (*Spodoptera frugiperda*). Wild and Tamed Phytobiomes:21st Penn State Plant Biology Symposium, June 19-22, 2018. University Park, PA. (Poster presentation)

Regan, K., C. Mullen, and M. Barbercheck. 2018. Insect Response to Organic Cover Crop-Based Reduced Tillage Cropping Systems. OFRF research symposium at the

Pennsylvania Association for Sustainable Agriculture Annual Conference, State College, PA, Feb. 10, 2018. (Poster presentation)

Regan, K., C. Mullen, M. Barbercheck. 2018. Effects of Organic Reduced-Tillage Cropping Systems on Epigeal Predators. 2018 Eastern Branch ESA Meeting, March 17-19, 2018, Annapolis, MD

Regan, K., C. Voortman, and M. Barbercheck. 2018. Effects of Reduced-Tillage Organic Cropping Systems on Arthropod Predators. Student Paper Competition, Entomological Society of America, Vancouver, BC.

Regan, K., C. Voortman, and M. Barbercheck. 2018. Insect Response to Organic Cover Crop-Based Reduced Tillage Cropping Systems. Poster Presentation, Penn State University Life Science Symposium, State College, PA

Regan, K., C. Voortman, and M. Barbercheck. 2018. "Arthropod Response to Cover Crop-Based Organic Cropping Systems. Plant-Insect Group Seminar Series, Entomology Department, Cornell University, Ithaca, NY.

2017

Barbercheck, M. 2017. A Growing Concern: Women Farmers Sustaining Agriculture and the Environment. Invited Seminar (Student Choice). WSU, Pullman, WA, March 21, 2017.

Barbercheck, M., Jermaine Hinds, Ariel Rivers, Christina Mullen. 2017. Effects of cover crops on insect pests and their natural enemies. Northeast Cover Crops Council Annual Meeting, Cornell University, Ithaca, NY, Nov. 8, 2017. (Invited oral presentation)

Barbercheck, M., Imtiaz Ahmad, Brianna Flonc, Maria Jimenez-Gasco, Dawn Luthe, Christina Mullen. 2017. Going underground: The role of a multifunctional fungus in organic cropping systems. Northeast Cover Crops Council Annual Meeting, Cornell University, Ithaca, NY, Nov. 8, 2017. (Poster presentation)

Barbercheck, M., I. Ahmed, M. Jimenez-Gasco, D. Luthe. 2017 Going underground: Conserving Insect-Pathogenic Fungi for Biological Control. 3rd Annual NEIPMC Online Conference, 23 October 2017 (5-minute flash talk, draft attached).

Barbercheck, M., I. Ahmed, M. Jimenez-Gasco, D. Luthe. 2017 Going underground: Conserving Insect-Pathogenic Fungi for Biological Control. NEIPMC Annual Advisory Council Meeting, 31 October 2017 (invited 30-minute presentation)

Ahmad, I., M. E. Barbercheck, C. Mullen, D. S. Luthe, M. D. Jimenez-Gasco. 2017. *Metarhizium*: A multifunctional fungal bodyguard of plants. 10th Annual Postdoctoral research exhibition at Penn State. September 22nd, 2017. (Poster presentation).

Ahmad, I., B. Flonc, M.E. Barbercheck, C. Mullen, D. S. Luthe, M. D. Jimenez-Gasco. 2017. Going underground: The ecology of a multifunctional fungus in an organic cropping system. USDA-NIFA OREI/ORG Project Director's Meeting, Washington, D.C. October 17 - 19, 2017. (Poster presentation).

Hinds, J., Barbercheck, M.E., Hagler, J. 2017. Impacts of cover crop diversification on attraction, dispersal, and pest suppression by generalist predators. Newport, RI. Invited Speaker for Mark Recapture Symposium, Annual Meeting of the Entomological Society of America, Eastern Branch, Newport RI, March 17 – 21, 2017.

Hinds, J., Barbercheck, M. 2017. Impacts of cover crop diversification on attraction, dispersal, and pest suppression by generalist predators. USDA Arid Land Agricultural Research Center. Maricopa, AZ.

Flonc, B. M. Barbercheck, C. Mullen. 2017. Does endophytic *Metarhizium* make fall armyworm picky eaters? 7th Annual PSU Sustainable Cropping Systems Symposium, Penn State University, University Park, PA, 31 March 2017

Regan, K., C. Mullen, and M. Barbercheck. 2017. Arthropod response to organic cover crop-based Reduced-Tillage Cropping Systems 7th Annual PSU Sustainable Cropping Systems Symposium, PSU, Penn State University, University Park, PA, 31 March 2017

Regan, K., C Mullen, M. Barbercheck. 2017. Arthropod response to organic cover crop-based reduced-tillage cropping systems. Entomological Society of America Eastern Branch Meeting, March 18 - 21, 2017, Newport, Rhode Island

Regan, K, (kjr5470@psu.edu), Christina Mullen and Mary Barbercheck, 2017. Arthropod Response to Organic Cover Crop-Based Reduced-Tillage Cropping Systems. Annual Meeting of the Entomological Society of America. Graduate Student Oral Competition. Annual Meeting of the ESA. Denver. CO

2016

Barbercheck, M. E. 2016. That's how we roll..or not: Reducing tillage in an organic cropping system. Invited seminar. Virginia Tech, Blacksburg, VA. 18 October 2016.

Hinds, J. and Barbercheck, M. 2016. The role of insectary plants in promoting pest suppression by key generalist natural enemies. 6th Annual Sustainable Agricultural Cropping Systems Symposium. *Poster Presentation*

Randhawa, P., I. Ahmed, D. Luthe, M. Barbercheck (presenter). 2016. Uncovering the effects of cover crops and soil characteristics on *Metarhizium*-plant-insect interactions in an organic cropping system. Invited speaker, COST FA1405 symposium, “Menage a trois: Three-way interactions between plants, arthropods, and microbes that benefit the plants” at Society for Invertebrate Pathology Annual Meeting, 2016, Tours, France, July 25, 2016.

Rivers, A., Barbercheck, M., Stancic, T., Govaerts, B., Verhulst, N. 2016. Mulch affects arthropod assemblage associated with field crops grown under conservation agricultural practices in North America. 26 Sept., 2016. 25th International Congress of Entomology, Orlando, FL. <https://esa.confex.com/esa/ice2016/meetingapp.cgi/Paper/105662>

Barbercheck, M.E., J. Wallace, W. Curran, R. Hoover. 2016. Cover Crop-Based Reduced Tillage in Organic Feed and Forage Cropping Systems. Jornadas de Producción Responsable y Diferenciada, Buenos Aires, Argentina. 3 November 2016. (200 attendees)

Regan K., C. Mullen, M. Barbercheck. 2016. Response of arthropods to organic cover crop-based reduced-tillage cropping systems. 6th Annual PSU Sustainable Cropping Systems Symposium [55 attendees]

2015

Murrell, E.G., Christina Mullen, Tara Pisani-Gareau and Mary Barbercheck. 2015. Crop management legacies in organic systems affect environmental conditions, but not ground beetle communities. Entomological Society of America Annual Meeting, St. Paul, MN, Nov. 14-19 (Poster presentation).

Barbercheck, M. Ariel Rivers, Randa Jabbour, Tara Pisani-Gareau and Christina Mullen. 2015. Arthropods in Organic Reduced Tillage Systems. ASA-CSSA-SSSA-ESA Joint Annual Meeting, St. Paul, MN, Nov. 14-19. (Invited Symposium--Organic Crop Management to Enhance Insect Ecology)

Barbercheck, ME, Randhawa, P. 2015. Effects of agricultural management on *Beauveria* and *Metarhizium*. Entomological Society of America Annual Meeting, St. Paul, MN, Nov. 14-19. (Invited, Member Symposium, Ecological engineering to improve microbial control)

Barbercheck, ME. 2015. Introduction to symposium. Applying a Systems Approach - Emergent Outcomes of Multidimensional Interactions in Agroecosystems. Entomological Society of America Annual Meeting, St. Paul, MN, Nov. 14-19. (Co-Organizer with R. Jabbour, Program Symposium)

Hinds, J., Hagler, J., Barbercheck, M. 2015. Impacts of cover crop diversification on attraction, dispersal, and pest suppression by two key generalist predators. Entomological Society of America Annual Meeting, St. Paul, MN, Nov. 14-19. Student competition, oral presentation.

Hinds, J., Barbercheck, M. 2015. Effects of cover crop diversification on attraction and pest suppression by two key generalist predators. Entomological Society of America - Eastern Branch Meeting. General Poster Submission. Poster Presentation.

Rivers, A., C. Mullen, M. Barbercheck. 2015. Entomological Society of America Annual Meeting, St. Paul, MN, Nov. 14-19. Cover crop species and termination timing influence Carabidae assemblage in 3-year transition to organic. Poster Presentation.

Rivers, A., C. Mullen, M. Barbercheck, J. Wallace. 2015. Crop sequence and cover crop species affect Carabidae assemblages in an organically-managed cover-crop based reduced tillage cropping system Entomological Society of America Annual Meeting, St. Paul, MN, Nov. 14-19. Student competition, oral presentation.

2014

Barbercheck, M., Cutter, C., Pate, J., Rolls, M., Suliman, S. 2014. Women Succeed in Science: Successful Women Share Their Stories. COAS Diversity Coordinating Council panel presentation and discussion. April 9, 2014. University Park, PA.

2013

Barbercheck, M.E. 2012. "Rachel Carson's Growing Legacy: Women Farmers Protecting the Environment." Invited seminar, PSU Dept. of Entomology. Jan. 11, 2013. University Park, PA (invited).

2012

Barbercheck, M.E., R. Jabbour. 2012. Conservation of soilborne entomopathogens in organic cropping systems. Invited symposium presentation, in: Persistence of Microbial Control Agents: Current Challenges, Recent Advancements and Future Needs. Annual Meeting, Entomological Society of America, Knoxville, TN, Nov. 10 – 15, 2012. Program Book, pg. 56. <http://esa.confex.com/esa/2012/webprogram/Paper63976.html>

Barbercheck, M.E., W. S. Curran, J. Harper, R. Hoover, S. Mirsky, C. Reberg-Horton, A. Stone, M. VanGessel, D. Weber. 2012. Reducing tillage in organic cropping systems. USDA NIFA Institute of Food Production and Sustainability Organic Project Director's Meeting. Washington, D.C. Oct. 3 – 4, 2012. Proceedings/Abstracts: pg. 31

Kaye, J.P., M.E. Barbercheck, M. Burgess, S. Cornelisse, T. DuPont, D. Hartman, M. Hautau, D. Luthe, D. Mortensen, M. Schipanski, C. White. 2012. Finding the right mix: Multifunctional cover crop cocktails for organic systems. USDA NIFA Institute of Food Production and Sustainability Organic Project Director's Meeting. Washington, D.C. Oct. 3 – 4, 2012. Proceedings/Abstracts: pg. 113.

Barbercheck, M.E. 2012. "A Growing Legacy: Women Farmers Protecting the Environment." Invited seminar, NCSU Rachel Carson Legacy Series. Oct. 18, 2012. Raleigh, NC (invited).

2011

Barbercheck, M.E. 2011. Hunter and hunted: entomopathogenic nematodes in the soil food web. Invited presentation for Member Symposium, Entomological Society of America, Reno, NV, 13-16 November 2011. Entomopathogenic Nematodes: Their Biology, Ecology, and Application. A Tribute to the Dynamic Career of Harry K. Kaya.

Schipanski, M., S. Bailey, M. Barbercheck, M. Douglas, D. Finney, K. Haider, J. Kaye, D. Mortensen, J. Tooker and C. White. 2011. A conceptual framework for evaluating multifunctionality of cover crops in agroecosystems. ASA/CSSA/SSSA International Annual Meetings, Oct. 16-19, San Antonio, Texas. <http://a-c-s.confex.com/crops/2011am/webprogram/Paper67788.html>

Barbercheck, M.E. 2011. Peering into the black box: building an understanding of the population biology of entomopathogenic nematodes. Invited symposium presentation "Legacy of Entomopathogenic Nematology: Contributions to Science & Environmental Sustainability." Society of Nematologists Annual Meeting, Corvallis, OR, 16-20 July, 2011.

Barbercheck, M. E. 2011. The real dirt: Harry Kaya's influence on entomopathogenic nematode ecology. Invited presentation for cross-divisional symposium: "The careers of Harry Kaya and Lerry Lacey: High impacts on science and scientists. Aug. 8 – 11, 2011. International Congress of Invertebrate Pathology & Microbial Control, Halifax, Nova Scotia

2010

Barbercheck, M. 2010. An Ecological Look at Pest Suppression in Organic Systems. Annual Meeting of the Midwest Organic and Sustainable Education Service. LaCrosse, WI. Feb. 25, 2010. (Invited Symposium/Research Forum speaker) 150 attendees. p. 25

Barbercheck, M., T. Pisani Gareau, R. Smith, D. Mortensen, J. Kaye, N.E. Kiernan, J. Harper. 2010. Weed management, environmental quality and profitability in organic feed and forage production systems. The Organic Research Forum at the MOSES 21st Annual Organic Farming Conference. Feb. 24-27, 2010, La Crosse, WI. p.25

2009

Jabbour, R., Barbercheck, M. 2009. Soil microarthropod response to the application of *Steinernema carpocapsae*-killed insects in maize and refuge habitats. Annual Meeting of the Society for Invertebrate Pathology, Park City, UT, August 16 - 20, 2009. <http://utahsip.org/agendadetails.cfm?aid=293>

2008

Barbercheck, M. Organic 101: Soil Management. SARE New American Farm Conference, March 25-27, 2008. Kansas City, MO (Invited)

Barbercheck, M. Organic weed management: Balancing pest management and soil quality in a transitional system. SARE/IOP Preconference: Growing the Organic Portfolio. March 24-25, 2008. Kansas City, MO (Invited)

Brasier, K., Amy Trauger, Mary Barbercheck, Nancy Ellen Kiernan, Carolyn E. Sachs, Audrey Schwartzberg. 2008. She's Not a Real Farmer: Extension Educator's

Interactions with Women Farmers. 71st Annual Meeting of the Rural Sociological Society, Manchester, New Hampshire, July 28-31, 2008.

Jabbour, R., Hulting, A.G., Mullen, C.A., Barbercheck, M.E. 2008. Soil management effects on entomopathogenic fungi during the transition to organic agriculture. Presentation at 79th Annual Entomology Society of America Eastern Branch Meeting, Syracuse, NY. March 9 - 11, 2008.

Jabbour, R., Barbercheck, M. 2008. Habitat complexity effects on nematode movement in maize. Oral presentation at Ecological Society of America Annual Meeting, Milwaukee, Wisconsin, August 3 - 8, 2008. p. 60

Jabbour, R., Barbercheck, M. 2008. Habitat complexity effects on nematode movement in maize. Annual Meeting of the Society for Invertebrate Pathology, Coventry, UK, August 3 - 7, 2008. P. 97.

Jabbour, R., Barbercheck, M.E. 2008. Response of soil microarthropods to the application of entomopathogenic nematode-killed insects in crop and refuge habitats. Presentation at 56th Annual Entomology Society of America Meeting, Reno, NV. November 16-19, 2008.

Neher, D.A., Barbercheck, M.E., Weicht, T.R., and Anas, O. Linking Nematode and Microarthropod Bioindicators to Ecosystem Function in Forest Soils. Oral presentation at Ecological Society of America Annual Meeting, Milwaukee, Wisconsin, August 3 - 8, 2008.

Trauger, A., Carolyn Sachs, Mary Barbercheck, Kathy Braiser and Nancy Ellen Kiernan. 2008. "Our market is our community": women farmers and civic agriculture in Pennsylvania, USA, Agriculture, Food and Human Values, Victoria, BC. 2008.

Pre-2008

Barbercheck, M., Mortensen, D., Hulting, A., Jabbour, R., Karsten, H., Sanchez, E., Duiker, S., Hyde, J., Kiernan, N.E. 2007. Balancing Pest Management and Soil Quality in a Transitional System. Entomological Society of America 55th Annual Meeting: Making Connections, San Diego, CA Dec. 8 - 12, 2007 (Abstract)

Jabbour, R., Barbercheck, M., Gendron, A., Bradley, B. Habitat complexity effects on entomopathogenic nematode dispersal. Entomological Society of America 55th Annual Meeting: Making Connections, San Diego, CA Dec. 8 - 12, 2007 (Abstract)

Jabbour, R., Mary Barbercheck, Christina Mullen. Effect of soil management on naturally occurring entomopathogenic fungi during the transition to an organic farming system SIP Meeting, Quebec. August 2007

Jabbour, R. Andrew Hulting, Mary Barbercheck Effect of soil management on naturally occurring entomopathogenic fungi during the transition to an organic farming system. Ecological Society of America, San Jose California. August 2007

Trauger, A., Carolyn Sachs, Mary Barbercheck, Kathy Braiser and Nancy Ellen Kiernan. Understanding effective educational programming for women farmers in the United States: the case of the Pennsylvania Women's Agricultural Network Rural Sociological Society, Louisville, KY.

M. E. Barbercheck. 2007. Use of Chemicals in Sustainable and Organic Agriculture: Philosophy and Practice. ACS Mid-Atlantic Regional Meeting May 16-18, 2007. Ursinus College, Colledgeville, PA (Invited symposium speaker)

M.E. Barbercheck , D.A. Neher, O. Anas, S.M. El-Allaf , and T.R.Weicht. 2007. Response of soil fauna to disturbance across three resource regions in North Carolina. 11th Biennial Soil Ecology Society Meeting April 29 - May 2, 2007 in Moab, Utah

Barbercheck, M. 2006. Effects of organic and conventional production practices on beneficial soil microfauna. 91st Meeting of the Ecological Society of America. Memphis, TN. Aug. 6-11, 2006. (Invited symposium speaker)

Jabbour, R. and Barbercheck, M.E. Habitat complexity effects on the persistence and movement of the entomopathogenic nematode *Steinernema carpocapsae*. 91st Meeting of the Ecological Society of America. Memphis, TN. Aug. 6-11, 2006.

Hulting, A.G., D. A. Mortensen and M. Barbercheck. Managing weed seedbank pools during the transition to an organic feed grain rotation in Pennsylvania. WSSA Abstracts. Annual Meeting of the Weed Science Society of America, New York, New York, Feb. 12-16th, 2006.

Barbercheck, M. Organic Weed Management: Balancing Pest Management and Soil Quality in a Transitional System. November 5, 2005, CSREES, USDA Awardee Workshop on Biologically-based Pest Management at the Entomological Society of America Annual Meeting, Fort Lauderdale, Florida

Barbercheck, M. and R. Jabbour. 2005. Biotic factors and farming systems affecting persistence and recycling. Symposium on Ecology of Entomopathogenic Nematodes. 38th annual meeting of the Society for Invertebrate Pathology will be held at the University of Alaska, Anchorage, Alaska. Aug. 7-11, 2005. (Invited symposium speaker)

Hulting, A., C. Nardozzo, B.P. Jones, M. Barbercheck, D. Mortensen. 2005. Fate of seedbank pools during the transition to an organic feed grain rotation in PA. NEWSS Proceedings, Washington D.C.

Barbercheck, M. and R. Jabbour. Biotic factors and farming systems affecting persistence and recycling. Symposium on Ecology of Entomopathogenic Nematodes. 38th annual meeting of the Society for Invertebrate Pathology will be held at the University of Alaska, Anchorage, Alaska. Aug. 7-11, 2005. (Invited symposium speaker)

Barbercheck, M. "Invisible Farmers: Women and Agricultural Technology". Women in Engineering Program Administrators Network (WEPAN) conference June 6-9 June, 2004. Albuquerque, NM. (presenter)

Understanding Whole Farm Agroecology through Experiential Learning. 2004 ASA-CSSA-SSSA International Annual Meetings, Seattle, Washington - Oct 31 - Nov 4, 2004 (HD Karsten, E Santiago-Andino, T Hoover, S Fleischer, M Bruns, D Mortensen, J Hyde, W Lamont, M Barbercheck)

Barbercheck, M.E., and C. M. Greenwood, 2004. Response of soil fauna to inundatively and cadaver-applied entomopathogenic nematodes (Invited Symposium Paper) Society for Invertebrate Pathology 37th Annual Meeting, Helsinki, Finland, Aug. 1-5, 2004.

Experiential Learning about Agroecology through On-farm Internships. (H. D. Karsten, M. E. Barbercheck, M. A. Bruns, S. J. Fleischer, T. S. Hoover, W. L. Lamont, D. A. Mortensen, E. Santiago) ASA-CSSA-SSSA Annual Meetings Denver, Colorado, November 2-6, 2003

Interactions between predators and entomopathogenic nematodes (C. M. Greenwood and M. Barbercheck) Entomological Society of America Annual Meeting Cincinnati, Ohio, 26-29 October 2003

Displacement and persistence. Third International Symposium of Entomopathogenic Nematodes and Symbiotic Bacteria. September 4-7, 2003, Arden Shishler Conference Center, Wooster, Ohio

Nematodes and collembola significantly reduce disease incidence caused by the pathogen, *Pythium ultimum*, in tomato. (W. ZHANG, H. D. Shew, M. Barbercheck and S. Hu). American Phytopathological Society, Aug. 9-13, 2003. Charlotte, NC

Effect of insect food plant and selection on infectivity, sex ratio, and melanization of *Steinernema* spp. in *Diabrotica undecimpunctata howardi* (Barbercheck, Wang, Brownie) Society for Invertebrate Pathology 36th Annual Meeting, Burlington, VT July 26-30.

Invisible Farmers: Women and agricultural technology, M. Barbercheck. Southeastern Women's Studies Association Annual Meeting, March 20-22, 2003, Blacksburg, VA

The Center for Environmental Farming Systems: The good, the bad and the ugly. NCSU Horticultural Science Departmental Seminar, 18 March 2002. Invited. (w/ N. Creamer).

Response of Soil Organisms to Conventional and Alternative Agricultural Production Systems . Mary Barbercheck. National SARE Conference, October 23-26, 2002, North Carolina

Interactions between predators and beneficial nematodes. M. Newman and M. Barbercheck. National SARE Conference, October 23-26, 2002, North Carolina

Soil characteristic trends in the first two years of a long term study on the sustainability of agricultural systems. C. Brownie, M.G. Wagger, S.V. Woolard, M.E. Barbercheck, M. Bell, N.G. Creamer, S. Hu, L. King, H.M. Linker, F.J. Louws, M. Marra, J.P. Mueller, C.W. Raczkowski. National SARE Conference, October 23-26, 2002, North Carolina

Adaptation of entomopathogenic nematodes to insect food plant. VIII International Colloquium on Invertebrate Pathology and Microbial Control. XXXV Annual Meeting of the Society for Invertebrate Pathology. August 18 to 23, 2002. Foz do Iguassu, Brazil. (M.E. Barbercheck, Wang and Brownie).

Influence of diverse agricultural systems on the population dynamics of free-living, plant-parasitic and entomopathogenic nematodes. Fourth International Congress of Nematology, 2002, Teneriffe (Koenning and Barbercheck).

Nematodes in wetland soils of North Carolina. Society of Nematologists 40th Annual Meeting, Salt Lake City, Utah, 25-29 Aug., 2001. (Neher, Barbercheck, Anas, El-Allaf).

Desarrollo y Implementacion de un Estudio de Sistemas Agricolas al Gran Escala y Larga Duracion. I Simposio Internacional sobre Ganaderia Agroecologica, La Habana, Cuba, 6-8 December, 2001. (Mueller, Barbercheck, Bell, Brownie, Creamer, Hu, King, Linker, Louws, Marra, Raczkowski, Susko, Wagger)

Investigaciones Sobre la Ecologia del Suelo en el Centro de Sistemas Agricolas Ambientales. IV Taller Internacional sobre Recursos Fitogeneticos, Sancti Spiritus, Cuba, 3-4 December, 2001.

Genetically Modified Foods: Cure for hunger or danger to society? 28 March 2001, Biotechnology Forum, Ag Awareness Week, NCSU. Invited speaker/panel member (with N. Creamer, C. Opperman)

Research and Education Programs at the Center for Environmental Farming Systems (w/ N. Creamer), Invited, NCSU Entomology Dept. Seminar, 19 Feb 2001.

Organic Agriculture Research at the Center for Environmental Farming Systems. Carolina Farm Stewardship Association 16th Annual Sustainable Agriculture Conference, Rock Hill, SC, Nov. 2-4, 2001.

Sustainable Agriculture Research at the Center for Environmental Farming Systems. Carolina Farm Stewardship Association 16th Annual Sustainable Agriculture Conference, Rock Hill, SC, Nov. 2-4, 2001.

Qualitative and quantitative indicators of soil quality. Carolina Farm Stewardship Association 16th Annual Sustainable Agriculture Conference, Rock Hill, SC, Nov. 2-4, 2001. (Bell, M.C., M.E. Barbercheck, F.J. Louws, and M.G. Wagger.)

Effects of land use type and disturbance on decomposition in North Carolina. Ecological Society of America, Aug. 5-10, 2001. Madison, WI. (M. Barbercheck, D. Neher, S. El-Allaf, O. Anas).

Ecological Approaches for Sustainable Pest Management. Invited. Penn State University Dept. of Entomology Extension Seminar. 25 Sept. 2001

The Impact of Agricultural Practices on Soil Organisms: Implications for Sustainability. Invited. Penn State University Entomology Department, 24 September 2001.

Conservation of Insect Pathogens in the Soil. Invited speaker. IOBC-ESCOP meeting, The Practice of Biological Control: Importation and management of natural enemies and agents. Aug. 2-5, 2001, Bozeman, MT

Soil Ecology at the Center for Environmental Farming Systems. Soil Ecology Society Conference, May 20-23, 2001, Calloway Gardens, GA.

Non-target effects of entomopathogenic nematodes. Invited, NCSU Entomology Dept. Seminar, March 6, 2000

Interaction between soil mites and entomopathogenic nematodes. ESA Annual Meeting, Dec. 3-7, 2000. Montreal, Canada (C. M. Newman & M. Barbercheck)

Qualitative and quantitative indicators of soil quality. Agronomy Society of America Annual Meeting 2000, p. 316 in Agronomy Abstracts, Agronomy Soc. Amer. St. Paul, MN. (Bell, M.C., M.E. Barbercheck, F.J. Louws, and M.G. Wagger.)

Advances in Organic Research: Soil Biology and Beneficial Organisms. Sustainable Agriculture Conference. Wilmington, NC, Nov. 3-5, 2000.

Evaluation of non-target effects of native and introduced entomopathogenic nematodes. COST 819 Symposium on Entomopathogenic Nematode Bacterial Complexes - Current Achievements and Prospects for the Future, Maynooth, Ireland, 12-16 April, 2000.

Response of soil microarthropods to application of entomopathogenic nematodes. ESA Annual Meeting, Atlanta, GA. Dec. 12-16, 1999. (C. M. Newman & M. Barbercheck)

The interaction between native and introduced entomopathogenic nematodes in conventional-till and no-till corn. ESA Annual Meeting, Atlanta, GA. Dec. 12-16, 1999. (L. C. Millar & M. Barbercheck)

Non-Target Effects of Entomopathogenic Nematodes. IOBC International Symposium "Evaluating Indirect Effects of Biological Control . 10/17-20, 1999. Montpellier, France (M. Barbercheck & L. C. Millar).

Problems and Possibilities of Extending Women's Studies into the Sciences. National Women's Association Annual Meeting, Albuquerque, NM, 17-21 June, 1999 (L. Severin, M. Wyer, M. Barbercheck)

Science, Sex and Stereotypes: Images of women in scientific advertising. USDA Women's History Month invited speaker, NCSU, April 15, 1999

Nontarget Effects of Entomopathogenic Nematodes. Invited, Honorary invited seminar. Jugatae Griswold Speaker, Cornell Dept. of Entomology, Ithaca, NY, April 12, 1999

Science, Sex and Stereotypes: Images of women in scientific advertising. Invited, ARO Women's History Month invited speaker, RTP, March 22, 1999

Science, Sex and Stereotypes: Images of women in scientific advertising. Invited. Duke WISE Program, Feb. 17, 1999

Science, Sex and Stereotypes: Images of women in scientific advertising. Invited. NCSU Entomology Dept. Seminar, Feb. 1, 1999

Nontarget effects of entomopathogenic nematodes. Soil Ecology Meeting, Chicago, IL, May 23-26, 1999 (M.E. Barbercheck, L.C. Millar)

Factors affecting activity of endemic soil entomopathogens in western North Carolina vegetable systems. SEB ESA annual Meeting, Sandestin, FL, March 1999. (R.L. Hummel, J.F. Walgenbach, & M.E. Barbercheck)

Colorado Potato Beetle susceptibility to *Beauveria bassiana* after acute and chronic exposure to *Bacillus thuringiensis* delta-endotoxin. Entomol. Soc. Amer. Annual Meeting, Las Vegas, NV, Nov. 1998. (S. D. Costa, G. G. Kennedy, M. E. Barbercheck)

Can endemic entomopathogenic nematodes be displaced by an introduced nematode? Entomol. Soc. Amer. Annual Meeting, Las Vegas, NV, Nov. 1998. (L. C. Millar, M. E. Barbercheck, J. Wang, W.C. Warrick, Jr.)

The effects of soil moisture on the ovipositional behavior of the southern mole cricket, *Scapteriscus borelli* (Orthoptera: Gryllotalpidae). Entomol. Soc. Amer. Annual Meeting, Las Vegas, NV, Nov. 1998. (P. Hertl, R. L. Brandenburg, M. E. Barbercheck)

Microarthropods as indicators of soil disturbance. Entomol. Soc. Amer. Annual Meeting, Las Vegas, NV, Nov. 1998. (D. A. Neher, M. E. Barbercheck, O. Anas)

Images of women in scientific advertising, WGS Faculty Seminars, Nov. 30, 1998. Invited.

Women in science. Invited lecture, NCSU WISE Program, 19 February 1998.

Interactions between native and introduced entomopathogenic nematodes. Entomol. Soc. Amer. Annual Meeting, Nashville, TN, Dec. 1997 (with J. Wang & C. Warrick).

Insect host plant effects on the biology of entomopathogenic nematodes. SIP Annual Meeting, Banff, Canada, Aug.24-29, 1997 (with J. Wang).

Women in Science: Building community among feminists across the discipline. National Women's Studies Association, St. Louis, MO, June 18-33, 1997 (Barbercheck, Wyer, Wayne, Ozturk, Cookmeyer)

Effect of tillage and crop rotation on insect-parasitic nematodes and fungi. Soil Ecology Society Conference, Manhattan, KS, May 27-30, 1997 (Barbercheck, Warrick & Wang)

Effect of tillage and crop rotation on entomopathogenic fungi and nematodes. SEB ESA, Asheville, NC, March 1997 (Barbercheck, Warrick & Wang)

Host Plant Effects on Entomopathogenic Nematodes. Invited Seminar, Dept. of Entomology and Nematology, Univ. Florida. Nov. 6, 1997.

Images of Women in Science. Invited speaker, MLS 601K - Contemporary Feminist Theory, NCSU, 10 Sept. 1997.

Images of Women in Science. Invited speaker, UNC Carolina Seminar Series, UNC-CH, 1 August 1997.

Adaptation of entomopathogenic nematodes to the food plant of their host insect. with J. Wang. Entomol. Soc. Amer. Annual Meeting, Louisville, KY, Dec. 1996.

Soil microarthropods as indicators of ecosystem disturbance. Ecological Society of America, Snowbird, CO, August 1995. Bulletin of the Ecological Society of America 77(1):66. Anas, O., Neher, D. A., El-Allaf, S., and Barbercheck, M. E., 1996.

Science Wars. Invited seminar speaker. Dept. of Entomology, NCSU, Nov. 18, 1996.

Use of nematode community structure to measure disturbance in agriculture, forest and wetland ecosystems. Amer. Phytopath. Soc., Pittsburgh, PA, August. Phytopathology 85:1125. Anas, O., Neher, D. A., El-Allaf, S., and Barbercheck, M. E., 1995.

Biotic similarity of microarthropod communities in forest, wetland, and agricultural soils of North Carolina. Poster at the 1995 Biennial Meeting of the Soil Ecology Society. Anas, O., Barbercheck, M. E., and Neher, D. A., 1995.

Soil mesofauna as bioindicators of ecosystem stress. Presented at the 1995 EMAP Science Meeting, Raleigh, NC. Anas, O., Neher, D. A., El- Allaf, S., and Barbercheck, M. E., 1995.

Tritrophic level effects on entomopathogenic nematodes. Entomol. Soc. Amer. Annual Meeting, Las Vegas, NV, Dec. 1995.

Adaptation of entomopathogenic nematodes to the southern corn rootworm and its host plants. Soc. Invertebrate Pathol., Ithaca, NY, July 1995 (M. E. Barbercheck & J. Wang)

Effect of soil compaction and litter removal on soil arthropods in a *Pinus taeda* plantation. 4th Annual Undergraduate Research Symposium, NCSU, Raleigh, NC, April 18, 1995. (T. Serbyn & M.E.Barbercheck).

Biotic similarity of microarthropod communities in forest, wetland, and agricultural soils in North Carolina. Soil Ecology Soc., Ft. Collins, CO, March 1995 (O. Anas, M.E.Barbercheck, & D. Neher)

Effect of soil compaction and litter removal on soil arthropods in a *Pinus taeda* plantation. Soil Ecology Soc., Ft. Collins, CO, March 1995 (M.E.Barbercheck & T. K. Serbyn)

Effect of continuous no-till culture on soil invertebrates and corn yield. SEB ESA, Charleston, SC, March, 1995. (M.E.Barbercheck, G. Naderman & C. Warrick).

Effect of feeding stress and fungal pathogens on survival of Colorado Potato Beetle. SEB ESA, Charleston, SC, March, 1995. (S. Costa, M.E.Barbercheck & G. Kennedy)

Diabrotica spp. and *Acalymma* spp. in Veracruz, Mexico: Occurrence, seasonal abundance, host plants and parasitoids. SEB ESA, Charleston, SC, March, 1995 (A. Eben, M.E.Barbercheck & F. Gould)

Host Plant Effects on the biology of the southern corn rootworm. SEB ESA, Charleston, SC, March, 1995 (I.S. Hirsh & M.E.Barbercheck)

Effect of cucurbitacin on bacterial symbionts of entomopathogenic nematodes. SEB ESA, Charleston, SC, March, 1995. (J. Wang & M.E.Barbercheck)

Effect of soil compaction and litter removal on soil arthropods in a *Pinus taeda* plantation. SEB ESA, Charleston, SC, March, 1995. (T. Serbyn, M.E.Barbercheck & F. Hain).

Tritrophic level effects on entomopathogenic nematodes. Invited symposium speaker. Entomol. Soc. Amer. Annual Meeting, Las Vegas, NV, 19 Dec. 1995.

Effect of soil compaction and litter removal on soil arthropods in a loblolly pine plantation. Invited seminar. Dept. of Entomology, NCSU, Sept. 25, 1995.

Effect of soil physical factors on soil biodiversity. Invited lecture. Biological Sciences 490, NCSU, 20 Sept. 1995.

Host plant effects on entomopathogenic nematodes. Invited seminar. Dept. Entomology, Univ. of Georgia, June 1, 1995.

Effect of soil compaction and litter removal on soil arthropods in a Pinus taeda plantation. 4th Annual Undergraduate Research Symposium, NCSU, Raleigh, NC, April 18, 1995. (T. Serbyn & M. Barbercheck).

Biological Diversity of Soils Under No-Till Corn. Invited presentation to the Research and Technology Committee of the NC Association of Soil and Water Conservation Districts, Raleigh, NC, January 9, 1995.

Mexican diabroticite beetles: host plant associations and cucurbitacin related herbivory. ESA, Dallas, TX, December 1994 (A. Eben, M. Barbercheck, & M. Aluja)

Host plant effects on the biology of the southern corn rootworm . ESA, Dallas, TX, December 1994 (I. S. Hirsh & M. Barbercheck)

Tritrophic level effects on entomopathogenic nematodes. VIth International Colloquium on Invertebrate Pathology and Microbial Control, Montpellier, France, August 1994.

Multitactic management of southern corn rootworm in peanuts. SEB ESA, Baton Rouge, LA, March 1994.

Host Plant Effects on Insect-Parasitic Nematodes. Invited seminar. Botany Dept., NCSU, 16 November 1994.

Effect of Soil Compaction and Harvest Removals on Soil Arthropod Diversity in a Loblolly Pine Plantation. Presentation to EMS 476/477, Croatan National Forest, 2 October 1994.

Pest Management with Insect-Parasitic Nematodes. Invited Training Seminar, County Agent Training. McKimmon Center, 15 November 1994.

Soil Entomology Research at NCSU. Invited seminar. Der Christian Albrechts Universitat, Kiel, Germany, 16 August 1994.

Tritrophic level effects on entomopathogenic nematodes. Invited symposium presentation. Vith International Colloquium on Invertebrate Pathology and Microbial Control, Montpellier, France, August 1994.

Host Plant Effects on Natural Enemies of Southern Corn Rootworm. Invited seminar. Plant Breeding and Genetics Group, NCSU, April 13, 1994.

Host plant effects on Insect-Parasitic Nematodes. Invited seminar. Dept. of Entomology, VPI & SU, March 16, 1994.

Tritrophic level effects on entomopathogenic nematodes. Invited presentation. Southern Regional Project 240, Microbial Control, San Diego, 17 February 1994.

Tritrophic level effects on entomopathogenic nematodes. ESA, Indianapolis, IN, December 1993

Tritrophic level effects on entomopathogenic nematodes. Society for Invertebrate Pathology, Asheville, NC, August 1993

Cultural, biological, and chemical control of southern corn rootworm in peanuts. SEB ESA, Little Rock, AR, March 1993.

Host plant effects on Entomopathogenic Nematodes. Invited seminar. Dept. of Entomology, Univ. of Delaware, 16 November 1993.

Host Plant Effects on Insect-Parasitic Nematodes. Invited Entomology Department Seminar, NCSU, November 8, 1993.

Soil Arthropods. Invited presentation to National Long-term Soil Productivity Technical Committee, Atlantic Beach, NC, September 13, 1993.

Insect Parasitic Nematodes for Biological Control. Invited seminar. Biocontrol Working Group, NCSU, April 19, 1993.

Tritrophic level effects on entomopathogenic nematodes. ESA, Baltimore, December, 1992

Host plant mediation of *Diabrotica undecimpunctata howardi* ecology. ESA, Baltimore, 1992 (A. Eben & M.E. Barbercheck)

Host plant effects on susceptibility of southern corn rootworms to entomopathogenic nematodes. SEB ESA, Savannah, GA, March 1992

Biology and Management of Southern Corn Rootworm in Peanuts. Peanut Overview, Departmental Review, Raleigh, NC, 1992.

Distribution of *Diabrotica undecimpunctata howardi* in peanuts and corn interplanted with hubbard squash, ESA, Reno, NV, December 1991.

Competitive interactions between entomopathogenic nematodes and *Beauveria bassiana* in hosts and in soil. Southeastern Branch Entomological Society of America, Orange Beach, AL, March 1991.

Effect of soil factors on biological control of soilborne pests. Invited symposium speaker. Caribbean Basin Administrative Group, Orlando, FL, 1991.

Detection of suitable hosts by entomogenous nematodes. Society of Nematologists, Davis, CA, August 1989

The compatibility between entomogenous nematodes and an entomopathogenic fungus in biological control. Society for Invertebrate Pathology, San Diego, CA, August 1988

The effect of soil solarization, fallow, and EDB fumigation on plant-parasitic nematodes. Nematological Society of Southern Africa, Stellenbosch, SA, 1985.

The importance of plant-parasitic nematodes in agriculture. Invited speaker. International Working Group for Agricultural Development in Southern Africa, Stellenbosch, South Africa, 1984.
