# Eileen M. Cullen

## Curriculum vitae

California State Polytechnic University, Pomona Phone: (909) 869-2189 Fax: (909) 869-5036 Department of Plant Science 3801 West Temple Avenue Email: emcullen@cpp.edu Pomona, CA 91768 https://www.cpp.edu/~agri/faculty-staff/bios/cullen.shtml

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Education	
2003	Ph.D. in Entomology; University of California, Davis
1999	M.S. in Plant Protection & Pest Management; University of California, Davis
1993	B.S. in Agriculture Education; University of Minnesota, Mpls./St. Paul, MN
<b>Professional</b>	Experience
2018-present	Professor   Urban & Community Agriculture Department of Plant Science, California State Polytechnic University, Pomona.
2014-2018	Associate Professor   Urban & Community Agriculture Department of Plant Science, California State Polytechnic University, Pomona.
2009-2014	Associate Professor and Extension Specialist Department of Entomology, University of Wisconsin, Madison.
2011	Visiting Professor Teagasc Agriculture and Food Development Authority, Wexford, Ireland.
2003 -2009	Assistant Professor and Extension Specialist Department of Entomology, University of Wisconsin, Madison.
1999-2003	Research Assistant, Entomology Dept., University of California, Davis.
1996-1999	Research Assistant, Plant Protection & Pest Management Graduate Group, University of California, Davis.
1996	Post Graduate Researcher, University of California Statewide IPM Project, IPM Education and Publications, Davis, CA.
1993-1996	Agriculture Education Specialist, W.K. Kellogg Foundation Integrated Farming Systems Project, Bio-Integral Resource Center (BIRC) Berkeley, CA.
1992	Field Technician, USDA APHIS PPQ, Mpls, MN. Leafy spurge and spotted knapweed biocontrol projects.

# Honors/Awards/Distinctions

2016	Exceptional Levels of Service to Students, 2016-2017. Cal Poly Pomona Academic Senate Exceptional Assigned Time Committee.
2015	Outstanding Service Award, Subject Editor, Journal of Integrated Pest Management 2010-2015, Entomological Society of America.
2014	Second Mile Award, Wisconsin Association of County Agricultural Agents.
2014	Research Recognition Award, College of Agricultural and Life Sciences, Agricultural Research Stations, University of Wisconsin, Madison.
2014	Honored Instructor Award, University of Wisconsin, Madison Student Housing
2010	Glenn Pound Award for Outstanding Extension Program, College of Agricultural and Life Sciences, University of Wisconsin, Madison.
2009	Entomological Foundation IPM Team Award, Entomological Society of America.
2005	Entomology Educational Project Award, Board Certified Entomologists of Mid-America.
2004	Outstanding Educational Program, American Distance Education Consortium.

# **Teaching**

Course	(term/year)

# Cal Poly Pomona -

	Vegetable Crop Systems	(Fall 16, 17)
PLT 2330/L	Introduction to Arthropods	(Winter 15, 16)
PLT 3630	Plant Science Junior Seminar	(Fall 14, 15; Spring 15, 18)
PLT 3760	Introduction to Urban Agriculture	(Winter 15, Spring 16, Fall 18)
PLT 4010	Crop Ecology	(Fall 15, 16, 17, 18)
PLT 4110	Environmental Toxicology	(Winter 16, 17, 18; Fall 18)
PLT 4400	Integrated Pest Management	(Spring16, 17, 18)
PLT 4450	Social & Scientific Aspects of Organic Agriculture	(Spring 15, 17)
AG 1010	Agriculture and the Modern World	(Spring 15)

# University of Wisconsin, Madison -

ENT 351	Principles of Economic Entomology	(Spring 13, 14)
ENT 905	Seminar in Applied Entomology	(Fall 05)

## **Graduate Student and Postdoctoral Training (# peer-reviewed publications)**

## **Cal Poly Pomona**

Amanda Marsh, Agricultural Science – Plant Science, M.S. (2017) Jaynie Tao, Agricultural Science – Human Nutrition and Food Science (M.S. 2015) #1

### **University of Wisconsin, Madison**

Dr. Ebony Murrell, Postdoctoral Scientist (2012-2014) #2 Elissa Chasen (Ph.D. Entomology 2013) #2 Katelin Holm (M.S. Agroecology 2009) #2 Heidi (Kraiss) Johnson (M.S. Entomology 2007) #3

### Grants Awarded (last 5 years)

Agricultural Research Institute at Cal Poly Pomona, Title: "Food Safety on California Urban Farms: Harnessing biological soil amendment microbial activity without increasing risk of microbial foodborne illness", Project Director: \$60,000. 2017-2018.

USDA National Institute of Food and Agriculture (Food Safety Outreach Program). Equipping Quality Urban Agriculture Leaders (E.Q.U.A.L.): Food Safety Training Customized for Urban and Community Food Production Systems. Project Director. \$60,000. 2016-2017.

California Citrus Research Board and Citrus Mutual. Development of an Outreach and Educational Program for the Asian Citrus Psyllid and Huanglongbing for the Urban Los Angeles Basin. Mellano, V.J. (Project Director), Soper, A.L., Cullen, E.M., Fox, A.F. \$73,487. 2016-18.

USDA National Institute of Food and Agriculture (Community Food Projects Program). RootDown South LA Local Food Site Project. Subcontract with Community Partners and RootDown LA, Los Angeles, CA. \$3,000 to Cullen. 2015.

#### **Related Professional Skills**

Certificate of Completion, Produce Safety Alliance Integrated Grower and Train-the-Trainer Course, Association of Food & Drug Officials, 2017.

Certificate of Completion, Independent Applying the QM Rubric (APPQMR): (Statewide Systems), The Quality Matters Program (QM), Pomona, CA, October 23, 2015.

Certificate of Completion, Organic Processing Inspection Training International Organic Inspectors Association and Northeast Organic Farming Association of New York, Binghamton, NY, October 21-25, 2013.

Certificate of Completion, Organic Crop Inspection Training International Organic Inspectors Association and Colorado Department of Agriculture Basic Crops Inspection Training, Loveland, CO, September 9-13, 2013.

#### **Professional Societies**

Professional and Organizational Development Network in Higher Education (POD Network)

Sustainable Agriculture Education Association

Entomological Society of America

Association of Applied Insect Ecologists

### **Professional Service**

### University

WSCUC Working Group #2, MQID Essay 3	2017 – present
Academic Programs Assessment Implementation Committee 2	2015 – present
General Education Assessment Committee	2015-2017
Advisory Council, Kellogg Honors College 2	2015 – present
Judge, 4th Annual Student Research, Scholarship and Creative Activities Conference	e 2016
Judge, 3 <sup>rd</sup> Annual Student Research, Scholarship and Creative Activities Conference	e 2015
Mini-Class Faculty, Kellogg Honors College Recruitment Showcase of Excellence	2015, 2016

## College

Huntley College of Agriculture Learning Measurement (CALM) Committee	2017 – present
Advisory Board, USDA NIFA Non-Land Grant Colleges of Agriculture	2017 - present
"Sowing the Seeds for a Multicultural 21st Century Workforce".	
Chair, Department of Plant Science Department Chair Review Committee	Spring 2015
Search Committee, AGRIscapes Educational Coordinator	Spring 2015
AGRIscapes Planning Committee	2014-15

### **Department**

Chair, Department of Plant Science Assistant Professor Search Committee	Spring 2016
Undergraduate Scholarship Committee, Department of Plant Science	2015 – present
Faculty Advisor, Ag Bio Entomology Club	2014 – present
Faculty Advisor, Los Robles Horticulture Club	2014-17
Academic Advisor, Plant Science Department	2015 – present
Coordinator & Reviewer, Plant Science Student Individual Academic Plans (IAPs	3) 2016-17

### National

Reviewer, FY18. Foundation for Food and Agriculture Research, Washington, DC.

Reviewer and Panelist, FY17, United States Department of Agriculture's National Institute of Food and Agriculture (NIFA) – Agriculture and Food Research Initiative (AFRI) Foundational Program, September 12-14, 2017, Washington, DC.

Stakeholder Advisory Committee, eXtension (eOrganic Community of Practice). 2010-2013.

Editorial Board, Journal of Integrated Pest Management. 2010-2014.

Editorial Board, Journal of Insect Science. 2008-2010.

#### **Publications**

\* Indicates undergraduate and graduate students, postdoctoral scientist mentored by Dr. Cullen

#### Journal Articles:

- 1. \*Tao, J., Davidov-Pardo, G., Burns-Whitmore, B., Cullen, E., & Yao, O. (2017). Effects of edible insect ingredients on the physiochemical and sensory properties in extruded rice products. *Journal of Insects as Food and Feed* 3:263-278 doi.org/10.3920/JIFF2017.0030
- 2. Krupke, C.H., Alford, A.M., Cullen, E.M., Hodgson, E.W., Knodel, J.J., McCornack, B., Potter, B.D., Spigler, M.I., Tilmon, K., & Welch, K. (2017). Assessing the value and pest management window provided by neonicotinoid seed treatments for management of soybean aphid (Aphis glycines Matsumura) in the Upper Midwestern United States. Pest Management Science, Apr 29, doi: 10.1002/ps.4602
- 3. European Corn Borer Ecology and Management and Association with Other Corn Pests. (2017). North Central Regional Extension Publication No. NCR 0327, Iowa State University Extension and Outreach, Ames, Iowa. 79 pp. https://store.extension.iastate.edu/Product/3067.
- 4. \*Murrell, E.G., \*Hanson, C.R., & Cullen, E.M. (2015). European corn borer oviposition response to soil fertilization practices and arbuscular mycorrhizal colonization of corn. Ecosphere, 6(6), doi.org/10.1890/ES14-00501.1
- 5. \*Chasen, E.M., Undersander, D.J., & Cullen, E.M. (2015). Revisiting the economic injury level and economic threshold model for potato leafhopper (Hemiptera: Cicadellidae) in alfalfa. Journal of Economic Entomology, 108(4), 1748-1756. doi: 10.1093/jee/tov120
- 6. \*Murrell, E.G., & Cullen, E.M. (2014). Conventional and organic soil fertility management practices affect corn plant nutrition and Ostrinia nubilalis (Lepidoptera: Crambidae) larval performance. Environmental Entomology, 43(5), 1264-1274. doi.org/10.1603/EN14008
- 7. McCarville, M.T., O'Neal, M.E., Potter, B.D., Tilmon, K.J., Cullen, E.M., McCornack, B.P., Tooker, J.F., & Prischmann-Voldseth, D.A. (2014). One gene versus two: a regional study on the efficacy of single gene versus pyramided resistance for soybean aphid management. Journal of Economic Entomology, 107(4), 680-687. http://dx.doi.org/10.1603/EC14047
- 8. \*Chasen, E.M., Dietrich, C., Backus, E.A., & Cullen, E.M. (2014). Potato leafhopper (Hemiptera: Cicadellidae) ecology and integrated pest management focused on alfalfa. Journal of Integrated Pest Management, 5(1), A1-A8. https://doi.org/10.1603/IPM13014

- 9. Reilly, K., Cullen, E., Lola-Luz, T., Stone, D., Valverde, J., Gaffney, M., Brunton, N., Grant, J., & Griffiths, B.S. (2013). Effect of organic, conventional, and mixed cultivation practices on soil microbial community structure and nematode abundance in a cultivated onion crop. Journal of the Science of Food and Agriculture, 93(15), 3700-3709. doi: 10.1002/jsfa.6206
- 10. Cullen, E.M., & \*Holm, K.M. (2013). Aligning insect IPM programs with a cropping systems perspective: Cover crops and cultural pest control in Wisconsin organic corn and soybean. Agroecology and Sustainable Food Systems, 37(5), 550-577. http://dx.doi.org/10.1080/21683565.2012.762438
- 11. Cullen, E.M., Gray, M.E., Gassmann, A.J., & Hubbard, B.E. (2013). Resistance to Bt corn by western corn rootworm (Coleoptera: Chrysomelidae) in the U.S. Corn Belt. Journal of Integrated Pest Management, 4(3), D1-D6. http://dx.doi.org/10.1603/IPM13012
- 12. Hesler, L.S., Chiozza, M.V., O'Neal, M.E., MacIntosh, G.C., Tilmon, K.J., Chandrasena, D.I., Tinsley, N.A., Cianzio, S.R., Costamagna, A.C., Cullen, E.M., DiFonzo, C.D., Potter, B.D., Ragsdale, D.W., Steffey, K., & Koehler, K.J. (2013). Performance and prospects of Rag genes for management of soybean aphid. Entomologia Experimentalis et Applicata, 147(3), 201-216. doi. 10.1111/eea.12073
- 13. Schmidt, N.P., O'Neal, M.E., Anderson, P.F., Labos, D., Voegtlin, D., Bailey, W., Caragea, P., Cullen, E., DiFonzo, C., Elliot, E., Gratton, C., Johnson, D., Krupke, C.H., McCornack, B., O'Neil, R., Ragsdale, D.W., Tilmon, K.J., & Whitworth, J. (2012). Spatial distribution of Aphis glycines (Hemiptera: Aphididae): A summary of the suction trap network. Journal of Economic Entomology, 105(1), 259-271. https://doi.org/10.1603/EC11126
- 14. Cullen, E.M. (2010). Extension specialist roles in communities of interest and place: An example from the agriculture-wildlife interface. Journal of Extension, 48(1), Feature 1FEA2. https://www.joe.org/joe/2010february/a2.php
- 15. Cullen, E.M., Stute, J.K., \*Raymond, K.L., & Boyd, H.H. (2008). Farmers' perspectives on IPM field scouting during a period of pest range expansion: A case study of variant western corn rootworm (Coleoptera: Chrysomelidae) in Wisconsin. American Entomologist, 54(3), 170-178.
- 16. \*Kraiss, H., & Cullen, E.M. (2008). Insect growth regulator effects of azadirachtin and neem oil on survivorship, development, and fecundity of Aphis glycines (Hemiptera: Aphididae) and its predator, Harmonia axyridis (Coleoptera: Coccinellidae). Pest Management Science, 64(6), 660-668. doi: 10.1002/ps.1541
- 17. \*Kraiss, H., & Cullen, E.M. (2008). Efficacy and non-target effects of reduced-risk insecticides on Aphis glycines (Hemiptera: Aphididae) and its biological control agent, Harmonia axyridis (Coleoptera: Coccinellidae). Journal of Economic Entomology, 101(2), 391-398. doi: 10.1603/0022-0493(2008)101[391:EANEOR]2.0.CO;2

- 18. Pedersen, P., Grau, C., Cullen, E., Koval, N., & Hill, J. (2007). Potential for integrated management of soybean virus disease. *Plant Disease*, *91(10)*,1255-1259. https://doi.org/10.1094/PDIS-91-10-1255
- 19. Ragsdale, D.W., McCornack, B.P., Venette, R.C., Potter, B.D., MacRae, I.V., Hodgson, E.W., O'Neal, M.E., Johnson, K.D., O'Neil, R.J., DiFonzo, C.D., Hunt, T.E., Glogoza, P.A., & Cullen, E.M. (2007). Economic threshold for soybean aphid (Hemiptera: Aphididae). *Journal of Economic Entomology*, *100*(4), 1258-1267. doi: 10.1603/0022-0493(2007)100[1258:ETFSAH]2.0.CO;2
- 20. Hodgson, E.W., McCornack, B.P., Koch, K.A., Ragsdale, D.W., Johnson, K.D., O'Neal, M.E., Cullen, E.M., \*Kraiss, H.J., DiFonzo, C.D., & Behnken, L.M. (2007). Field validation of speed scouting for soybean aphid. *Crop Management*, *6*(1), doi: 10.1094/CM-2007-0511-01-RS
- 21. Cullen, E.M., & Zalom, F.G. (2007). On-farm trial assessing efficacy of three insecticide classes for management of stink bug and fruit damage on processing tomatoes. *Plant Health Progress*, doi:10.1094/PHP-2007-0323-01-RS
- 22. Cullen, E.M., & Zalom, F.G. (2006). Euschistus conspersus female morphology and attraction to methyl (2E, 4Z)-decadienoate pheromone-baited traps in processing tomatoes. *Entomologia Experimentalis et Applicata*, 119(2), 163-173. doi: 10.1111/j.1570-7458.2006.00407.x
- 23. Cullen, E.M., & Zalom, F.G. (2005). Relationship between Euschistus conspersus (Hem., Pentatomidae) pheromone trap catch and canopy shake samples in processing tomatoes. *Journal of Applied Entomology*, *129*(9-10), 505-514. doi: 10.1111/j.1439-0418.2005.01013.x
- 24. Millar, J.G., McBrien, H.L., Ho, H.Y., Rice, R.E., Cullen, E.M., Zalom, F.G., & Uokl, A. (2002). Pentatomid bug pheromones in IPM: possible applications and limitations. Bulletin of the International Organization of Biological Control, Pheromone Working Group, 25(9), 1-IOBC/WPRS; 1998
- 25. McBrien, H.L., Millar, J.G., Rice, R.E., McElfresh, J. S., Cullen, E., & Zalom, F.G. (2002). Sex attractant pheromone of the red shouldered stink bug Thyanta pallidovirens: A pheromone blend with multiple redundant components. *Journal of Chemical Ecology*, 28(9), 1797-1818. doi: 10.1023/A:1020513218454
- 26. Millar, J.G., Rice, R.E., Steffan, S.A., Daane, K.M., Cullen, E., & Zalom, F.G. (2001). Attraction of female digger wasps, Astata occidentals Cresson (Hymenoptera: Sphecidae) to the sex pheromone of the stink bug Thyanta pallidovirens (Hemiptera: Pentatomidae). *Pan-Pacific Entomologist*, 77(4), 244-248.
- 27. Cullen, E., Zalom, F., Steinke, W., & Hummel, N. (2001). High-volume applications to improve canopy penetration and efficacy of reduced risk insecticides in processing tomatoes. *Acta Horticulturae*, 542, 31-37.

- 28. Cullen, E.M., Zalom, F.G., Flint, M.L., & Zilbert, E.E. (2000). Quantifying trade-offs between pest sampling time and precision in commercial IPM sampling programs. Agricultural Systems, 66(2), 99-113. https://doi.org/10.1016/S0308-521X(00)00038-X
- 29. Cullen, E.M., & Zalom, F.G. (2000). Phenology-based field monitoring for consperse stink bug (Hemiptera: Pentatomidae) in processing tomatoes. Environmental Entomology, 29(3), 560-567. https://doi.org/10.1603/0046-225X-29.3.560
- 30. Flint, M.L., Cullen, E., Zalom, F., Miyao, G., & Coviello, R. (1998). Pest management record-keeping duties shift with computerization. California Agriculture, 52(4), 27-31. doi: 10.3733/ca.v052n04p27
- 31. Zalom, F., Cullen, E., Walsh, D., Tobia, C., & Larsen, D. (1999). Phytotoxicity of narrow range oil and sulfur. Arthropod Management Tests, 24(2), E101. https://doi.org/10.1093/amt/24.1.E101
- 32. Zalom, F., Walsh, D., Cullen, E., Tobia, C., & Miayo, G. (1999). Potato aphid control with narrow range oils. Arthropod Management Tests, 24(1), E100. https://doi.org/10.1093/amt/24.1.E100

## Selected Extension, Educational, Government Publications:

- 1. Lacy A., Cullen E., Barzen J., Schramm S. (2013). Protect Your Corn From Cranes. Publication A3897. University of Wisconsin, Cooperative Extension Publishing, Madison, WI, 4 pp.
- 2. Porter P., Cullen E., Sappington T., Schaafsma A., Pueppke S., Andow D. et al. (2012). Comment Submitted by Patrick Porter, North Central Coordinating Committee NCCC46. US Environmental Protection Agency Docket No. EPA-HQ-OPP-2011-0922-0013.
- 3. \*Holm K., Cullen E. (2012). Insect IPM in Organic Field Crops: Seedcorn Maggot. Publication A3972-01. University of Wisconsin-Extension, Cooperative Extension Publishing, Madison, WI, 6 pp.
- 4. Cullen, E., and Schramm, S. (2009). Two-Spotted Spider Mite Management in Soybean and Corn. Publication A3890. University of Wisconsin-Extension Cooperative Extension Publishing, Madison, WI, 4 pp.
- 5. Cullen, E., and Jyotika, J. (2008). Western Bean Cutworm: A Pest of Field and Sweet Corn. Publication A3856. University of Wisconsin-Extension, Cooperative Extension Publishing, Madison, WI, 4 pp.
- 6. Cullen E. (1996). Integrated Pest Management and Biological Control in Agriculture: Four Curriculum Units for Grades 9-12. Bio-Integral Resource Center, Berkeley, CA 87 pp.

### **Paper/Poster Presentations**

Phillips, J.C. & Cullen, E. (2017). A Culture of Assessment in a College of Agriculture. In 2017 Stories of Successful Learning: Assessment Across Cal Poly Pomona, Student Affairs and Academic Affairs, Pomona, CA, September 19, 2017. (Poster)

Cullen, E.M. (2016). "Developing an Urban Agriculture Minor in Metropolitan Southern California", In Teaching Urban Agriculture: Opportunities and Challenges. Sustainable Agriculture Education Association annual meeting, University of California, Santa Cruz, July 29-30, 2016. (Paper)

Murrell, E.M., & Cullen, E.M., (2015). "Is mineral balance beneficial? Gypsum fertilization affects European corn borer development and insect damage to corn", In Insect Ecology in Organic Crop Management Systems. Entomological Society of America annual meeting, Minneapolis, MN, November 15-18, 2015. (Paper)

Krupke, C., Tilmon, K., Cullen, E.M., Hodgson, E.W., Knodel, J., McCornack, B., Mitchell, P.D., & Potter, B.D. (2015). "A cost-benefit analysis from multistate research on insecticidal seed treatments in soybean", In What Are the Costs and Benefits for Neonicotinoid Seed Treatments in Field Crops? Entomological Society of America annual meeting, Minneapolis, MN, November 15-18, 2015. (Paper)

#### **Invited talks**

2017, "Understanding micro-organisms on the farm that can cause illness" & "Food Safety Legal Considerations", Workshop #3 Food Safety Basics for Urban Farmers, University of California Division of Agriculture and Natural Resources – Los Angeles Area Urban Agriculture Workshop Series, Bell, CA, August 11, 2017.

Link: <a href="http://ucanr.edu/sites/UrbanAg/files/271462.pdf">http://ucanr.edu/sites/UrbanAg/files/271462.pdf</a>

2017, "Food Safety Training Customized for Urban and Community Food Production Systems", USDA National Institute of Food and Agriculture, Food Safety Outreach Program - Western Region Project Director Meeting, Boise, ID, May 11, 2017.

2016, "Organic Certification Processes", Grow Riverside's Growers Forum, Citrus State Historic Park – Sunkist Center, Riverside, CA, October 29th, 2016.

2016, "GAIN for Fertile Ground: LA Urban Farming", Larta Institute's Global Ag Innovation Network (GAIN) National Forum, Local Roots Farms, Vernon, CA, October 20, 2016.