

PAUL DAVID MITCHELL

Associate Professor, Department of Agricultural and Applied Economics
 Extension State Specialist, Cropping Systems and Environmental Management
 Director, Renk Agribusiness Institute, UW College of Agricultural and Life Sciences
 Co-Director, Nutrient and Pest Management Program, UW Extension
 Faculty Affiliate, Nelson Institute for Environmental Studies, UW-Madison
 Fellow, International Science & Technology Practice & Policy (University of Minnesota)
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EDUCATION

- Ph.D. Iowa State University, Ames, Iowa
 Economics, (Major in Agricultural Economics): August 1999
 Major Professor: Bruce A. Babcock
 Dissertation: *The Theory and Practice of Green Insurance: Insurance to Encourage the Adoption of Corn Rootworm IPM*
- M.A. University of Wisconsin-Madison, Madison, Wisconsin
 Classics, December 1991
- B.A. Iowa State University, Ames, Iowa
 History, May 1990

ACADEMIC POSITIONS

- 6/2010 – present **Associate Professor**, Department of Agricultural and Applied Economics, University of Wisconsin-Madison
Appointment: 70% Extension, 30% Research, 9-months
- 7/2016-present **Director**, Renk Agribusiness Institute, UW Madison
- 1/2012-present **Co-Director**, Nutrient and Pest Management Program, UW Extension
- 8/2004 – 6/2010 **Assistant Professor**, Department of Agricultural and Applied Economics, University of Wisconsin-Madison
- 8/1999 – 8/2004 **Assistant Professor**, Department of Agricultural Economics, Texas A&M University
- 6/1994 – 8/1999 **Research Assistant**, Iowa State University, Department of Economics
- 7/1993 – 6/1994 **Research Assistant**, Iowa State University, Department of Botany
- 9/1991 – 7/1993 **Graduate Instructor**, University of Wisconsin, Department of Classics

PROFESSIONAL HONORS AND AWARDS

Team Workgroup Leadership and Responsiveness Award, University Of Wisconsin Agricultural and Natural Resources Extension, 2016

Researcher of the Year, Wisconsin Potato and Vegetable Growers Association, 2015

Extension Excellence in Audio Visual Award, American Society of Agronomy, 2013

Integrated Pest Management Team Award, Entomology Society of America, 2011

Professional Achievement Alumni Award, Department of World Languages and Cultures, Iowa State University, 2007

RESEARCH

A. Refereed Journal Articles

1. Hurley, T.M., and P.D. Mitchell. 2016. Value of Insecticide Seed Treatments to U.S. Soybean Farmers. *Pest Management Science* DOI: 10.1002/ps.4424.
2. Moore, V.M., P.D. Mitchell, E.M. Silva, and B.L. Barham. 2016. Cover Crop Adoption and Intensity on Wisconsin's Organic Vegetable Farms. *Agroecology and Sustainable Food Systems* 40(7):693-713.
3. Dong, F., P.D. Mitchell, V. Davis and R. Recker. 2016. Impact of Atrazine Prohibition on the Sustainability of Weed Management in Wisconsin Corn Production. *Pest Management Science* doi: 10.1002/ps.4298.
4. Dong, F., P.D. Mitchell, T. Hurley and G. Frisvold. 2016. Quantifying Adoption Intensity for Weed Resistance Management Practices and Its Determinants among U.S. Soybean, Corn, and Cotton Farmers. *Journal of Agricultural and Resource Economics* 41(1):42-61.
5. Dong, F., P.D. Mitchell, D. Knuteson, J. Wyman, A.J. Bussan, and S. Conley. 2015. Assessing Sustainability and Improvements in U.S. Midwestern Soybean Production Systems Using a PCA-DEA Approach. *Renewable Agriculture and Food Systems* doi:10.1017/S1742170515000460.
6. Tinsley, N, P.D. Mitchell, R. Wright, L. Meinke, R. Estes, M. Gray. 2015. Estimation of Efficacy Functions for Products Used to Manage Corn Rootworm Larval Injury. *Journal of Applied Entomology* doi: 10.1111/jen.12276.
7. Milne, A.M, J.R. Bell, W.D. Hutchison, F. van den Bosch, P.D. Mitchell, D. Crowder, S. Parnell, and A.P. Whitmore. 2015. The effect of farmers' decisions on pest control with Bt crops: a billion dollar ecology game. *PLoS Computational Biology* 11(12): e1004483. doi:10.1371/journal.pcbi.1004483.
8. Andow, D.A., S.G. Pueppke, A.W. Schaafsma, A.J. Gassman, T.W. Sappington, L.J. Meinke, P.D. Mitchell, T.M. Hurley, R.L. Hellmich, and R.P. Porter. 2015. Early Detection and Mitigation of Resistance to Bt Maize by Western Corn Rootworm (Coleoptera: Chrysomelidae). *Journal of Economic Entomology* 109:1-12.
9. Recker, R.A., J.G. Lauer, D.E. Stoltenberg, P.D. Mitchell, and V. M. Davis. 2015. Does Timing Influence the Utility of Reduced Atrazine Rates for Proactive Resistance Management? *Weed Technology* 29:464-471.

10. Recker, R.A., P.D. Mitchell, D.E. Stoltenberg, J.G. Lauer, and V.M. Davis. 2015. Late-season Weed Escape Survey Reveals Discontinued Atrazine Use Associated with Greater Abundance of Broadleaf Weeds. *Weed Technology* 29:451-463.
11. Gaspar, A.P., P.D. Mitchell, and S.P. Conley. 2015. Economic Risk and Profitability of Soybean Seed Treatments at Reduced Seeding Rates. *Crop Science* 55:924-933.
12. Dong, F., P.D. Mitchell, and J. Colquhoun. 2015. Measuring Farm Sustainability Using Data Envelope Analysis with Principal Components: The Case of Wisconsin Cranberry. *Journal of Environmental Management* 147:175-183.
13. Silva, E., F. Dong, P.D. Mitchell, and R. Claypool. 2015. Impact of marketing channels on perceptions of quality of life and profitability for Wisconsin's organic vegetable farmers. *Renewable Agriculture and Food Systems* 30:428-438.
14. Mitchell, P.D. 2014. Market-level assessment of the economic benefits of atrazine in the United States. *Pest Management Science* 70:1684-1696.
15. Silva, E.M., R. Claypool, J. Munsch, J. Hendrickson, P.D. Mitchell, and J. Mills. 2014. Veggie Compass: A Spreadsheet-Based Tool to Calculate Cost-of-Production for Diversified Organic Vegetable Farmers. *Hort Technology* 24: 394-402.
16. Rejesus, R.M., M. Mutuc-Hensley, P.D. Mitchell, K.H. Coble, and T.O. Knight. 2013. U.S. Agricultural Producer Perceptions of Climate Change. *Journal of Agricultural and Applied Economics* 45:701-718.
17. Mitchell, P.D., R. Rejesus, K.H. Coble, T.O. Knight. 2012. Analyzing Farmer Participation Intentions and Enrollment Rates for the Average Crop Revenue Election (ACRE) Program. *Applied Economics Perspectives and Policy* 34:615-636. doi:10.1093/aep/pps038.
18. Goeser, N, P.D. Mitchell, P. Esker, D. Curwen, G. Weis, and A.J. Bussan. 2012. Modeling Long-term Trends in Potato Growth and Development in Wisconsin. *Agronomy* 2:14-27. doi:10.3390/agronomy2010014.
19. You, W., P.D. Mitchell, and R. Nayga. 2012. Improving Food Choices among Supplemental Nutrition Assistance Program Recipients. *Health Economics* 21:852-864. doi:10.1002/hec.1758.
20. Onstad, D.W., P.D. Mitchell, T.M. Hurley, J.G. Lundgren, R.P. Porter, C.H. Krupke, J.L. Spencer, C.D. DiFonzo, T.S. Baute, R.L. Hellmich, L. Buschman, W.D. Hutchison, and J.F. Tooker. 2011. Seeds of Change: Corn Seed Mixtures for Resistance Management and IPM. *Journal of Economic Entomology* 104:343-352.
21. Hutchison, W.D., E.C. Burkness, P.D. Mitchell, R.D. Moon, T.W. Leslie, S.J. Fleischer, M. Abrahamson, K.L. Hamilton, K.L. Steffey, M.E. Gray, R.L. Hellmich, L.V. Kaster, T.E. Hunt, R.J. Wright, K. Pecinovsky, T.L. Rabaey, B.R. Flood, and E.S. Raun. 2010. Areawide Suppression of European Corn Borer with Bt Maize Reaps Savings to Non-Bt Maize Growers. *Science* 330:222-225.
22. Dillen, K., P.D. Mitchell, T. Van Looy, and E. Tollens. 2010. The Western Corn Rootworm, A New Threat to European Agriculture: Opportunities for Biotechnology? *Pest Management Science* 66:956-966.
23. Dun, Z., P.D. Mitchell, and M. Agosti. 2010. Estimating *Diabrotica virgifera virgifera* Damage Functions with Field Data: Applying an Unbalanced Nested Error Component Model. *Journal of Applied Entomology* 134:409-419.

24. Dillen, K., P.D. Mitchell, and E. Tollens. 2010. On the Competitiveness of *Diabrotica virgifera virgifera* Damage Abatement Strategies in Hungary: a Bio-economic Approach. *Journal of Applied Entomology* 134:395-408.
25. Frisvold, G. F., T. M. Hurley, and P. D. Mitchell. 2009. Adoption of Best Management Practices to Control Weed Resistance by Cotton, Corn, and Soybean Growers. *AgBioForum* 12:370-381.
26. Hurley, T. M., P. D. Mitchell, and G. Frisvold. 2009. Effects of Weed Resistance Concerns and Resistance Management Practices on the Value of Roundup Ready® Crops. *AgBioForum* 12:291-302.
27. Hurley, T. M., P. D. Mitchell, and G. Frisvold. 2009. Weed Management Costs, Weed Best Management Practices, and The Roundup Ready® Weed Management Program. *AgBioForum* 12:281-290.
28. Hurley, T. M., P. D. Mitchell, and G. Frisvold. 2009. Characteristics of Herbicides and Weed Management Programs Most Important to Corn, Cotton, and Soybean Growers. *AgBioForum* 12:269-280.
29. Frisvold, G. F., T. M. Hurley, and P. D. Mitchell. 2009. Overview: Herbicide Resistant Crops – Diffusion, Benefits, Pricing and Resistance Management. *AgBioForum* 12:244-248.
30. Hsieh, M.-F., P. D. Mitchell, K. W. Stiegert. 2009. Potato Demand in an Increasingly Organic Marketplace. *Agribusiness: An International Journal* 25:369-394.
31. Mitchell, P. D., and T. O. Knight. 2008. Economic Analysis of Supplemental Deductible Coverage as Recommended in the USDA's 2007 Farm Bill Proposal. *Agricultural and Resource Economics Review* 37:117-131.
32. Seo, S., E. Segarra, P. D. Mitchell, and D. J. Leatham. 2008. Irrigation Technology Adoption and Its Implication for Water Conservation in the Texas High Plains: A Real Options Approach. *Agricultural Economics* 38:47-55.
33. Bussan, A.J., P. D. Mitchell, M. E. Copas, and M. J. Drilias. 2007. Evaluation of the Effect of Density on Potato Yield and Tuber Size Distribution. *Crop Science* 47:2462-2472.
34. Mitchell, P. D., and D. W. Onstad. 2005. Effect of Extended Diapause on the Evolution of Resistance to Transgenic *Bacillus thuringiensis* Corn by Northern Corn Rootworm (Coleoptera: Chrysomelidae). *Journal of Economic Entomology* 98:2220-2234.
35. Mueller, T. C., P. D. Mitchell, B. G. Young, and A. S. Culpepper. 2005. Proactive versus Reactive Management of Glyphosate-Resistant or Tolerant Weeds. *Weed Technology* 19:924-933.
36. Seo, S., P.D. Mitchell, and D. Leatham. 2005. Effects of Federal Risk Management Programs on Optimal Acreage Allocation and Nitrogen Use in a Texas Cotton-Sorghum System. *Journal of Agricultural and Applied Economics* 37:685-699.
37. Crowder, D. W., D. W. Onstad, M. E. Gray, P. D. Mitchell, J. L. Spencer, and R. J. Brazee. 2005. Economic Analysis of Dynamic Management Strategies Utilizing Transgenic Corn for Control of Western Corn Rootworm (Coleoptera: Chrysomelidae). *Journal of Economic Entomology* 98:961-975.
38. Mitchell, P. D. 2004. Nutrient Best Management Practice Insurance and Farmer Perceptions of Adoption Risk. *Journal of Agricultural and Applied Economics* 36:657-673.

39. Mitchell, P. D., M. E. Gray, and K. L. Steffey. 2004. A Composed Error Model for Estimating Pest-Damage Functions and the Impact of the Western Corn Rootworm Soybean Variant in Illinois. *American Journal of Agricultural Economics* 86:332-344.
40. Hurley, T. M., P. D. Mitchell, and M. E. Rice. 2004. Risk and the Value of Bt Corn. *American Journal of Agricultural Economics* 86:345-358.
41. Onstad, D. W., D. W. Crowder, P. D. Mitchell, C. A. Guse, J. L. Spencer, E. Levine, and M. E. Gray. 2003. Economics versus Alleles: Balancing IPM and IRM for Rotation-Resistant Western Corn Rootworm (Coleoptera: Chrysomelidae). *Journal of Economic Entomology* 96:1872-1885.
42. Mitchell, P. D. 2003. Value of Imperfect Input Information in Agricultural Production. *Agricultural Systems* 75:277-294.
43. Mitchell, P. D., T. M. Hurley, B. A. Babcock, and R. L. Hellmich. 2002. Insuring the Stewardship of Bt Corn: A Carrot versus a Stick. *Journal of Agricultural and Resource Economics* 27:390-405.
44. Alston, J. M., J. Hyde, M. C. Marra, and P. D. Mitchell. 2002. An Ex Ante Analysis of the Benefits from the Adoption of Corn Rootworm Resistant, Transgenic Corn Technology. *AgBioForum* 5:71-84.
45. Mitchell, P.D., and W. Riedell. 2001. Stochastic Dynamic Population Model for Northern Corn Rootworm *Diabrotica barberi* (Coleoptera: Chrysomelidae). *Journal of Economic Entomology* 94:599-608.
46. Crumpton, W. G., T. M. Isenhardt and P. D. Mitchell. 1992. Nitrate and Organic N Analyses with Second-Derivative Spectroscopy. *Limnology and Oceanography* 37:907-913.

B. Book Chapters

1. Mitchell, P. D., and D. W. Onstad. 2013. Valuing Insect Resistance in an Uncertain Future. D. W. Onstad, ed. *Insect Resistance Management: Biology, Economics, and Prediction*, 2nd ed. San Diego, CA: Academic Press, pp. 17-38.
2. Hurley, T. M., and P. D. Mitchell. 2013. Insect Resistance Management: Adoption and Compliance. D. W. Onstad, ed. *Insect Resistance Management: Biology, Economics, and Prediction*, 2nd ed. San Diego, CA: Academic Press, pp. 227-253.
3. Bussan, A. J., D. Sexson-Knuteson, J. Colquhoun, L. Binning, S. Jansky, J. Jiang, P. D. Mitchell, W. R. Stevenson, R. Groves, J. Wymann, M. Ruark, and J. K. Kelling. 2012. Case Study: Healthy Grown Potatoes and Sustainability of Wisconsin Potato Production. J.S. Popp, M.M. Jahn, M.D. Matlock, and N.P. Kemper, eds. *The Role of Biotechnology in a Sustainable Food Supply*. Cambridge: Cambridge University Press, pp. 192-211.
4. Mitchell, P. D., and W. D. Hutchison. 2008. Decision Making and Economic Risk in IPM. E.B. Radcliffe and W.D. Hutchison, R.E. Cancelado, eds. *Integrated Pest Management*. Cambridge: Cambridge University Press, pp. 33-50. (Peer Reviewed)
5. Mitchell, P. D., and D. W. Onstad. 2008. Valuing Insect Resistance in an Uncertain Future. D. W. Onstad, ed. *Insect Resistance Management: Biology, Economics, and Prediction*. San Diego, CA: Academic Press, pp. 17-38.
6. Hurley, T. M., and P. D. Mitchell. 2008. Insect Resistance Management: Adoption and Compliance. D. W. Onstad, ed. *Insect Resistance Management: Biology, Economics, and Prediction*. San Diego, CA: Academic Press, pp. 227-253.

7. Mitchell, P. D. and T. M. Hurley. 2006. Adverse Selection, Moral Hazard, and Grower Compliance with Bt Corn Refuge. R. Just, J. Alston, and D. Zilberman, eds. *Economics of Regulation of Agricultural Biotechnologies*. New York: Springer, pp. 599-624.
8. Mitchell, P. D. and D. A. Hennessy. 2003. Factors Determining Best Management Practice Adoption Incentives and the Impact of Green Insurance. B.A. Babcock, R. W. Fraser, and J. N. Lekakis, eds. *Risk Management and the Environment: Agriculture in Perspective*. Dordrecht, The Netherlands: Kluwer Academic Publishers, pp. 52-66.
9. Mitchell, P. D., P. G. Lakshminarayan, B. A. Babcock and T. Otake. 1998. The Impact of Soil Conservation Policies on Carbon Sequestration in Agricultural Soils of the Central U.S. R. Lal, J. M. Kimble, R. F. Follet, and B. A. Stewart, eds. *Management of Carbon Sequestration in Soil*. Boca Raton, FL: CRC Press, pp. 125-142. (Peer Reviewed)

C. Research Grants (last four years)

Lead Investigator on \$2.1 million USDA-Specialty Crop Research Initiative (SCRI) grant, \$350,000 extramural competitive grant, and 3 intramural competitive grants. Co-Investigator on 9 extramural grants for more than \$15 million, including USDA-AFRI, 2 USDA-SCRI Grants, USDA-Biotechnology Risk Assessment Grant, and grants from United Soybean Board, North Central Soybean Research Program, Wisconsin Corn Promotion Board, and Ceres Trust.

D. Invited Research Presentations (last five years)

1. Economic Benefits of the Pyrethroid Insecticides. U.S. Environmental Protection Agency: Biological and Economic Analysis Division, Washington, DC, October 13, 2016.
2. Economics Benefits of Triazine Herbicides for Corn (with D. Bridges). Briefing to staff of U.S. Department of Agriculture, Agricultural Research Service, Office of Pest Management Policy, Washington, DC, September 22, 2016 (teleconference).
3. The Value of Neonicotinoids to US Agriculture. Briefing to majority staff for the US Senate Environment and Public Works Committee and the Agriculture Committee, Washington, DC, July 14, 2016.
4. Economic Issues to Consider for Gene Drives (with Z. Brown and N. McRoberts). Roadmap to Gene Drives: A Deliberative Workshop to Develop Frameworks for Research and Governance, Genetic Engineering and Society Center, North Carolina State University, Feb 24-26, 2016.
5. Discussion Regarding the Value of Corn and Soybean Neonicotinoid Seed Treatments for Canada (with P. Nowak). Health Canada's Pest Management Regulatory Agency, June 30, 2015 (teleconference).
6. The Value of Neonicotinoids (with P. Nowak). U.S. Department of Agriculture, Agricultural Research Service, Office of Pest Management Policy, Washington, DC, May 14, 2015.
7. Methodological Issues Associated with Reports on the Value of Neonicotinoids in North American Agriculture (with P. Nowak). U.S. Environmental Protection Agency: Biological and Economic Analysis Division, Washington, DC, April 7, 2015.
8. Value of Neonicotinoids in North America (with P. Nowak). U.S. Environmental Protection Agency: Biological and Economic Analysis Division, Washington, DC, Jan 22, 2015.

9. Economic Benefits of Neonicotinoids. American Seed Trade Association Annual Meeting, Chicago, IL Dec 10, 2014.
10. Biotechnology, Neonicotinoids and Organic Agriculture: An Economist's Perspective on Current Debates, UW Plant Sciences Symposium, Madison, WI, Oct 3, 2014.
11. Economic Benefits of the Neonicotinoid Insecticides Clothianidin, Imidacloprid and Thiamethoxam in North American Agriculture: A Multi-Method Analysis (with P. Nowak and T.M. Hurley). U.S. Environmental Protection Agency: Biological and Economic Analysis Division, Washington, DC, March 8, 2014.
12. What Farmers Think about Climate Change, Wisconsin Sustainability Forum 2014: Climate Change in Wisconsin: Where Do We Go from Here? University of Wisconsin, Madison, WI, February 27, 2014.
13. Measuring Adoption Intensity of Weed Resistance Management Practices using Data Envelopment Analysis with Principal Components (with F. Dong, T. Hurley, and G. Frisvold). Public and Private Sector Policy Implications of Research on the Economics of Herbicide Resistance Management. Workshop Sponsored by the USDA-Economic Research Service, Washington, DC, November 8, 2013.
14. It's in the Can: What Wisconsin Grows and Processes. University of Wisconsin Food Science Departmental Seminar. Madison, WI, October 29, 2012.
15. The Freakonomics of Plant Protection. 2012 University of California-Davis, Department of Plant Pathology, Davis, CA, May 7, 2012. Video Online: <http://uc-d.adobeconnect.com/plp290-050712/>.
16. Measuring Sustainability: A Practice-Based Approach Using DEAPC (with F. Dong). Taking the National Initiative for Sustainable Agriculture to the Next Level. March 15-16, 2012, Denver, CO.
17. Estimating the Economic Benefits of Atrazine: An Overview of Our Methods. U.S. Environmental Protection Agency: Biological and Economic Analysis Division, Washington, DC, March 8, 2012.

E. Research Presentations (last five years)

1. An Agent Based Model of Bt Corn Adoption and Insect Resistance Management (with Y. Saikai), Monsanto Corn Academic Summit, St. Louis, MO, Feb. 22, 2017.
2. Risk-Based IPM for Soybean Aphid Using Neonicotinoid Seed Treatments and Foliar-Applied Insecticides. International Congress of Entomology, Orlando FL, Sep. 29, 2016.
3. Economic Benefits of Neonicotinoid Insecticides in the U.S. and Canada: Implications for IPM. International Congress of Entomology, Orlando FL, Sep. 28, 2016.
4. Incorporating Product Performance Variability into Rootworm Management Recommendations (with N. Tinsley), Monsanto Corn Academic Summit, St. Louis, MO, Feb. 11, 2016.
5. Incorporating Product Performance Variability into Rootworm Management Recommendations (with N. Tinsley), NCCC 46 Annual Meetings, Sioux Falls, SD, Jan. 27, 2016.
6. Update on SCRI Project Building Market Foundations for Sustainable Vegetable Production and Processing. New York Processing Sweet Corn and Processing Green Bean Advisory Panel Meetings, Geneva, NY, Dec 14, 2015.

7. Field-Level Economic Benefits of Neonicotinoid Seed Treatments in Corn and Soybean (with N. Tinsley and N. Wille). Entomology Society of America Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015.
8. Estimated Impact of Neonicotinoid Insecticides on Pest Management Practices and Costs for U.S. Corn, Soybean, Wheat, Cotton and Sorghum Farmers. Entomology Society of America Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015.
9. Value of Insect Pest Management to U.S. and Canadian Corn, Soybean and Canola Farmers. American Agricultural Economics Association Annual Meeting, San Francisco, CA, July 26-28, 2015.
10. Profitability of Alternative Management Strategies for Corn Rootworm. Monsanto Corn Academic Summit, St. Louis, MO, February 19, 2015.
11. Impacts of Atrazine Prohibition on Roundup Ready Adoption, Tillage, and Number of Herbicide Sites of Action used in Wisconsin Crop Production. Weed Science Society of America Annual Meeting, Lexington, KY, Feb 12, 2015.
12. Value of Neonicotinoids in North America. NC-205/NCC46 Joint Meetings, San Antonio, TX, January 27, 2015.
13. National Initiative for Sustainable Agriculture (NISA). 17th Annual Farmer Cooperative Conference, Minneapolis, MN, November 6, 2014.
14. Non-Neonicotinoid Counter-Factual: What would Crop Management Look Like without Neonicotinoids? Joint Session of the 25th International Working Group on Ostrinia and Other Maize Pests and NC205/NCCC46, Chicago, IL, April 13-17, 2014.
15. Measuring Agricultural Sustainability. NC-205/NCC46 Joint Meetings, Atlanta, GA, January 28, 2014.

F. Organized Symposiums

1. Research Updates on Neonicotinoid Insecticides, Organized by P.D. Mitchell and T.M. Hurley, Joint Session of the 25th International Working Group on Ostrinia and Other Maize Pests and NC205/NCCC46, Chicago, IL, April 13-17, 2014.
2. Herbicide Resistance Weeds and the Sustainability of Herbicide Tolerant Crops, Organized by T. Hurley, P.D. Mitchell, and G. Frisvold. Agricultural and Applied Economics Association Annual Meeting, Seattle, WA, August 13-15, 2012.

SERVICE

Ad hoc Manuscript Reviewer: I have completed 60 journal manuscript reviews since 2010 and more than 100 in my career. These have included top agricultural economics journals such as *American Journal of Agricultural Economics*, as well as top scientific journals including *Science*, *Nature: Scientific Reports*, *Science Advances*, and *PLoS-ONE*, and numerous top field journals including *Pest Management Science*, *Crop Science*, and *Journal of Economic Entomology*. I also served as reviewer of the National Research Council of the National Academy of Sciences: *The Impact of Genetically Engineered Crops on Farm Sustainability in the United States*

Service at the University of Wisconsin (three-year terms): CALS Academic Planning Council, CALS Research Advisory Committee, CALS Curriculum Committee

EXTENSION

A. Extension Publications

1. A Toolkit for Assessing IPM Outcomes and Impacts. An Online Living Document with Multiple Modules: <http://westernipm.org/index.cfm/center-projects/project-websites/toolkit-for-assessing-ipm-outcomes-and-impacts/>. Written by the IPM Adoption and Impacts Assessment Workgroup (B. Coli, A. Fournier, P. Goodell, M. Halbleib, J. Haley, K. Hansen, J. Hurley, T. Lybbert, M. Lubbell, N. McRoberts, W. Miller, P.D. Mitchell, D. Sande, S. Tungate, D. Young, and C. Thomas) with USDA NIFA funding through the Western IPM Center, Davis, CA, October 2013.
2. Grain Management Considerations in Low Margin Years. F. Arriaga, S. Conley, B. Jensen, C. Laboski, J. Lauer, B. Luck, P. Mitchell, D. Smith. UW Extension Publication A4137: http://fyi.uwex.edu/fieldcroppathology/files/2017/01/TeamGrainsFactSheet_FINAL.pdf.

B. Extension Web Pages

1. Veggie Compass (<http://www.veggiecompass.com/>) an ongoing project focused on developing whole farm profit management tools designed to help growers improve on-farm decision making and financial farm planning in order to maximize profitability and ensure the continuation of sustainable farms.

C. Extension Fact Sheets

I have written 60 extension fact sheets covering a range of topics, most often in response to issues in crop insurance, disaster assistance, farm programs, cost of production and pest management, with many available at <http://www.aae.wisc.edu/mitchell/extension.htm>.

D. Publications in Trade Magazines

1. Mitchell, P.D., F. Dong, and P. Bethke. 2016. Grower Price Effects of Innate™ Potato. *The Badger Common'Tater* 68(8):48-53.
2. Mitchell, P.D., N. Wille, F. Dong, and D. Knuteson. 2015. Agricultural sustainability for Wisconsin's Potato & Vegetable Growers. *The Badger Common'Tater* 67(8):23-29.
3. Mitchell, P. D. 2014. Farm Bill Commodity Programs: Farmers Face Important Long-Term Decisions. *The Badger Common'Tater* 66(8):12-16.
4. Mitchell, P. D., Deana Knuteson, and Jeff Wyman. 2013. Update on the SCRI Sustainable Processing Vegetable Project. *The Badger Common'Tater* 65(8):9-13.
5. Mitchell, P. D. 2012. Wisconsin's Contributions to Sustainability Solutions. *The Badger Common'Tater* 64(8):10-12.
6. Ruark, M., and P. D. Mitchell. 2012. Economics of Managing Nitrogen for Sweet Corn. *The Badger Common'Tater* 64(7):11-13.
7. Mitchell, P. D. 2011. Economic Impact of Vegetable Production in Wisconsin, or Why What We Do Matters. *The Badger Common'Tater* 63(8):10-12.
8. Mitchell, P. D., J. Weber, B. Barham. 2010. Fair Trade Coffee—Lessons for Healthy Grown. *The Badger Common'Tater* 62(8):9-11.
9. Mitchell, P. D. 2009. Crop Insurance: Practices and Experiences of Wisconsin Potato and Vegetable Growers. *The Badger Common'Tater* 61(8):9-11.

10. Mitchell, P.D. 2008. Flooding on the Farm: The Effects of Floods on Agriculture. *Storm Water Solutions Runoff*, Feature article in August 2008 e-newsletter, <http://www.estormwater.com/Flooding-on-the-Farm-article9528>.
11. Mitchell, P. D. 2008. The 2008 Farm Bill and What it Means for Wisconsin Potato and Vegetable Growers. *The Badger Common'Tater* 60(8):10-13.
12. Bussan, A.J., M. Carter, J. Colquhoun, A. Dierks, S. Dierks, R. Groves, P.D. Mitchell, P. Nowak, D. Knuteson, A. Wallendahl. 2008. Sustainable Potato Production: A Means to an End? *The Badger Common'Tater* 60(4):10-12.
13. Mitchell, P. D., M. F. Hsieh, and K. Stiegert. 2007. Potato Demand in an Increasingly Organic Marketplace. *The Badger Common'Tater* 59(10):10-12.

E. Extension Presentations

I have made at least 195 presentations to state and regional extension audiences since my arrival in 2004, including 97 over 2014-2017. Topics have varied greatly depending on audience need, but have predominantly included agricultural policy, crop insurance, insect and weed management, agricultural sustainability and crop economics. Many are available at <http://www.aae.wisc.edu/mitchell/extension.htm>.

TEACHING

A. Courses Taught at the University of Wisconsin

AAE 320: Farming Systems Management (3 hours)

Undergraduate course on the fundamentals of production economics and farm business management, including financial management, taxes and business arrangements, budgeting, and agricultural policy: <http://www.aae.wisc.edu/aae320/main.asp>.

AAE 399: Coordinated Internship/Cooperative Education (variable credits)

Coordinated student business internship, with credits typically taken in summer and fall. Required regular reports of summer activities and a paper and additional meetings in the fall describing the internship and knowledge learned. Taught twelve times since 2006.

AAE 575: Economics of Managing Agricultural Production Systems (3 credits)

Graduate course on the use of experimental data to estimate and optimize agricultural production systems: <http://www.aae.wisc.edu/pdmitchell/AAE575/AAE575.html>.

B. Direction of Graduate Students at the University of Wisconsin

Major Professor: Masters

1. Nicola Wille, Agricultural and Applied Economics, Anticipated graduation Aug 2015.
2. Virginia Moore, AgroEcology and Agricultural and Applied Economics, Anticipated graduation Aug 2015.
3. Carsten Croff, Agricultural and Applied Economics, Graduated Summer 2007.
Thesis: "Estimating the Economic Impact of Tropospheric Ozone on Agriculture: Comparing Stochastic and Deterministic Methods."

Major Professor: Ph.D.

1. Zhe Dun, Agricultural and Applied Economics, Graduated August 2014.