

JOHN MICHAEL ANTLE

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PERSONAL STATEMENT

Throughout my career I have been engaged in teaching and research aimed at improving our understanding of agricultural and food systems, and using that knowledge to improve private and public decision making by communicating research to stakeholders in government and civil society. Another theme of my work has been the development of trans-disciplinary research to improve our understanding of the sustainability of agricultural systems – by this I mean deep collaboration that changes the way we do disciplinary science. I have worked collaboratively with other economists and social scientists, as well as disciplines ranging from entomology, soil science, agronomy, animal and veterinary science, to climate sciences, ecology and geology, to medical sciences and public health. As part of this integrative research, I have led the development of an analytical tool for “multi-dimensional impact assessment” (the TOA-MD model). This model is being used by a wide array of national and international research programs to assess the sustainability of agricultural systems, to assess the provision of ecosystem services in agricultural landscapes, to assess the impacts of climate change on agricultural systems and households, and to assess the impacts of agricultural policies. In addition to my own research projects, I am a co-PI and leader of the Regional Economics Team of AgMIP, the Agricultural Model Inter-Comparison and Improvement Project – a new “community of science” that is exploring new ways to do trans-disciplinary agricultural science. Through this new approach to science we hope to raise the understanding of agricultural systems and food systems to the level that true sustainability can be achieved.

EDUCATION

Ph.D., Economics, University of Chicago, 1980
M.A., Economics, University of Chicago, 1979
A.B., *summa cum laude*, Economics and Mathematics, Albion College, 1976

EMPLOYMENT

Professor, Applied Economics, Oregon State U., 2010-Present
Professor, Agricultural Economics and Economics, Montana State U., 1990-2010
Senior Staff Economist, President’s Council of Economic Advisers, 1989-90
Associate Professor, Agricultural Economics and Economics, Montana State U., 1987-90
Associate Professor, Agricultural Economics, U. California, Davis, 1984-87
Assistant Professor, Agricultural Economics, U. California, Davis, 1980-84

AWARDS

Abraham Lincoln Award (for excellence in research and contributions to U.S. agriculture) U.S.
Dept. of Agriculture, 2016

Presidential Award (for AgMIP leadership), American Society of Agronomy, 2015
F.E. Price/OSU Agricultural Research Foundation Award for Excellence in Research, 2015
Choices Article of the Year Award, Agricultural and Applied Econ Assn., 2013
Quality of Research Discovery Award, Agricultural and Applied Econ. Assn., 2012
Quality of Research Discovery Award (Honorable Mention), Ag. and Applied Econ. Assn., 2011
University Fellow, Resources for the Future, 1990-present
Recognized by the Intergovernmental Panel on Climate Change as a contributor to the 2007
Nobel Peace Prize awarded to the IPCC
John Dillon Fellow, Australian Agricultural and Resource Economics Society, 2005
Distinguished Fellow, American Agricultural Economics Association, 2002
Policy Article Prize, Center for Intl Food and Ag Policy, University of Minnesota, 1995
Journal Article of the Year (Honorable Mention), Western Ag Economics Association, 1995
Outstanding Journal Article (Honorable Mention), American Ag Economics Assn, 1995
Journal Article of the Year Award, Northeastern Ag and Resource Economics Association, 1992
Outstanding Journal Article, American Agricultural Economics Association, 1988
Resident Fellowship, National Center for Food and Agricultural Policy, Resources for the Future,
1986
Gilbert F. White Fellowship, Resources for the Future, 1984-1985

PUBLIC POLICY AND PROFESSIONAL SERVICE

Reviewer for various professional journals, grant proposals, etc.
Co-founder, Executive Committee member, and Economics Team Leader, Agricultural Model
Inter-comparison and Improvement Project, 2011-present
Member, Fellows Selection Committee, Ag & Applied Economics Association, 2012-2016
Contributing Author, Fourth Assessment Report, Intergov Panel on Climate Change, U.N., 2006-
2007
Lead Author, Third Assessment Report, Intergov Panel on Climate Change, U.N., 1999-2000
President and Chairman of the Executive Board, American Ag Economics Association, 1999-2000
President Elect and Executive Board Member, American Ag Economics Association, 1998-1999
Member, Committee on the Human Dimensions of Global Change, Natl Research Council, 1997-
2000
Member, Board on Agriculture, National Research Council, 1992-1997
Senior Economist, President's Council of Economic Advisors, 1989-1990

CURRENT TEACHING, ADVISING, UNIVERSITY AND DEPARTMENTAL SERVICE

I currently am teaching a field course in the Applied Economics Ph.D. program at Oregon State University, AEC 640 Sustainable Development, and a graduate course in microeconomic theory (AEC 512). In Spring 2018 I will begin co-teaching a new course on Global Poverty and Sustainable Development (AEC 243). I am chairing three Ph.D. committees and member of two others. My research projects in the U.S., Africa and South Asia provide opportunities for OSU students to participate in capacity-building and international and inter-disciplinary research activities.

Another capacity building activity is the course I have co-developed with colleagues on the use of the TOA-MD impact assessment model. This course includes a User Guide, a set of Learning Modules, and technical documentation for self-guided use. This material is available free to researchers with the model software at our web site (tradeoffs.oregonstate.edu). On our web site

is a map showing the global locations of over 500 individuals and institutions that are “registered users” of our software, meaning that they have obtained our software, completed at least the Basic Learning Module, and agreed to the Terms of Use. We have organized a series of courses that conclude with a 1-week workshop (see our web site for further information). I am currently transforming these research and teaching materials into a book-length manuscript that I expect to complete in 2016 and publish on-line.

As a member of AgMIP’s Executive Council and the leader of AgMIP’s Regional Economics Team, I have contributed to the development of a handbook on methods for integrated assessment of climate change impacts (<http://www.agmip.org/regional-integrated-assessments-handbook/#>). As part of the AgMIP-led project in Africa and South Asia, my OSU-based team has trained over 25 economists in Africa and South Asia to use these methods to carry out climate impact assessments in their countries.

As a member of the AgMIP Executive Council, I meet regularly with other members by phone conference, participate in public events to publicize AgMIP work, and help to organize periodic global meetings, the next one will be in Costa Rica in April 2018 (see www.agmip.org).

I am currently serving on the search committee for the College of Agriculture dean, and I am chair of the Applied Economics Promotion and Tenure Committee. In summer 2018 I will become the Director of the Applied Economics Graduate Program.

PROFESSIONAL PRESENTATIONS AND MEETINGS

Each year I make numerous presentations at conferences, workshops and other venues. A complete list of recent presentations is available on request. In 2017 and 2017 this included presentations to a National Research Council meeting on carbon sequestration (September 2017); an international meeting on crop losses organized by the French national agricultural research institute (INRA) (October 2017); the National Science Foundation US-China INFEWS program (December 2017).

RECENT RESEARCH FUNDING

Antle, J. “Rapid Assessment of Agriculture in a 1.5 Degree C World.” Subcontract to Columbia University, USDA Cooperative Agreement. 2016-17. \$50,000.

Antle, J. “Climate Change Impacts on Agriculture and Land Use.” 2014-16. Cooperative Ecosystems Studies Unit, USGS, \$155,000.

Antle, J. “Agricultural Research Support for East Africa.” 2015-16. International Crops Research Institute for the Semi-Arid Tropics, \$44,000.

Antle, J. and R. Valdivia. “Assessing Index-Based Crop Insurance Potential in West Africa.” USAID and International Center for Tropical Agriculture. 2015-2016. \$34,803.

Rosenzweig, C., J. Jones, J. Hatfield, J. Antle and others. 2015 – 2017. Agricultural Model Intercomparison and Improvement Project, \$5,000,000. UKAID-USDA/ARS. (J. Antle leads Regional Economics Team, \$430,000 subcontract).

Wu, JunJie, J. Antle, S. Capalbo, C. Daly. “Assessing Climate-Induced Water Scarcity and Strategies to Adapt for Agriculture Systems in the U.S. Pacific Northwest.” US Department of Agriculture Office of the Chief Economist, \$99,988. 2014-2015.

- Antle, J.M., J. Jones and Cynthia Rosenzweig and others. 2014. Scoping Study: Designing the Next Generation of Decision Support Tools for Evaluating Farm-Level Sustainable Intensification Options. Bill and Melinda Gates Foundation. \$430,000.
- Antle, J.M. and S.M. Capalbo. 2013-2014. Environmental Sustainability and Tradeoff Analysis Research Program. Bill and Melinda Gates Foundation. \$130,000.
- Rosenzweig, C., J. Jones, J. Hatfield, J. Antle and others. 2011 – 2014. Agricultural Model Intercomparison and Improvement Project, \$10,000,000. UKAID-Columbia University-USDA/ARS. (J. Antle leads Regional Economics Team, \$540,000 subcontract).
- Diebel, P., J.M. Antle (co-PI) and others. Developing a Sustainable Biofuels System in the PNW: Economic, Policy and Commercialization Analysis. USDA/AFRI. 2013-2015. \$350,000.
- Eigenbrode, S., J. Antle and others. 2011-2017. Approaches to Climate Change for Inland Pacific Northwest Agriculture. USDA-NIFA. \$20,000,000. Economics component \$2,000,000 (J. Antle is leader of Modeling Team).

PUBLICATIONS

In Preparation or Submitted

- Antle, J.M. and others. Are Poor Farm Households Vulnerable to Climate Change? New Computational Methods Provide New Answers and Solution Strategies. In preparation for Nature Climate Change.
- Antle, J.M. and R.O. Valdivia. Tradeoff Analysis Model for Multi-Dimensional Impact Assessment, Version 6. E-book in preparation.
- Antle, J.M. Selection and Comparative Advantage in Technology Adoption: A Reconsideration. *Econometrica*, in preparation.
- Antle, J.M. et al., editors. Economic Vulnerability of Agricultural Households to Climate Change: New Evidence from AgMIP Regional Integrated Assessments. Proposal for a Special Issue to be submitted to *Climate Change Economics* and other journals. This will include 3-4 papers co-authored by myself and others, and a total of about 12 papers from the AgMIP and REACCH projects. If a special issue does not materialize, these papers will be submitted individually.
- Ruane, A.C., J.M. Antle et al. 2017. Global and Regional Agricultural Implications of +1.5 and +2.0 °C Warming. *Climate Change Research*. Submitted March 2018
- Valdivia, R.O., J.M. Antle and others. Understanding the bio-physical and economic tradeoffs of climate change impacts on smallholder farming systems under 1.5° and 2.0° C global warming. In preparation.
- Zhang, H. and J. Antle. 2017. Weather, Climate and Production Risk. *Journal of Agricultural Economics*, submitted April 2018.

Publications (* Award winners)

- Antle, J.M., S. Cho, H. Tabatabaie and R. Valdivia. 2018. Economic and Environmental Performance of Dryland Wheat Systems in a 1.5 Degree C World. Mitigation and Adaptation Strategies for Global Change. DOI 10.1007/s11027-018-9804-1.
- Rosenzweig, C., A.C. Ruane, J.M. Antle, et al. 2017. Coordinating AgMIP data and model across global and regional scales for 1.5° and 2.0° C assessments. *Philosophical Transactions of the Royal Society A*. Accepted for publication, December 2017.
- Antle, J., J. Mu, H. Zhang, S. Capalbo, P. Diebel, S. Eigenbrode, C. Kruger, C. Stöckle, J.D. Wulfhorst. 2017. Design and Use of Representative Agricultural Pathways in U.S Pacific

- Northwest Wheat-Based Systems. *Frontiers in Ecology and Evolution*. Published online. doi: 10.3389/fevo.2017.00099.
- Mu, E., B. Sleeter and J.M. Antle. 2017. Climate Impacts on Agricultural Land Use in the USA: The Role of Socioeconomic Scenarios. *Climatic Change* 144(2): 329–345.
- Valdivia, R.O., J.M. Antle and J.J. Stoorvogel. 2017. Designing and Evaluating Sustainable Development Pathways for Semi-Subsistence Crop-Livestock Systems: Lessons from Kenya. *Agricultural Economics*. Volume 48(S1): 11–26. DOI: 10.1111/agec.12383.
- Stöckle, C.O., S. Higgins, R. Nelson, J. Abatzoglou, D. Huggins, W Pan, T. Karimi, J. Antle, S. Eigenbrode, and E. Brooks. 2017. Evaluating Opportunities for an Increased Role of Winter Crops as Adaptation to Climate Change in Dryland Cropping Systems of the U.S. Inland Pacific Northwest. *Climatic Change*. Published online.
- Antle, J., S. Homann-Kee Tui, K. Descheemaeker, P. Masikate, R. Valdivia. 2017. “Using AgMIP Regional Integrated Assessment Methods to Evaluate Climate Impact, Adaptation, Vulnerability and Resilience in Agricultural Systems.” In L. Lipper, N. McCarthy, D. Zilberman, S. Asfaw and G. Branca, editors. *Climate Smart Agriculture - Building Resilience to Climate Change*. New York: Springer.
- Antle, J.M., H. Zhang, J. Mu, J. Abatzoglou and C.O. Stöckle. 2017. Methods to Assess Between-System Adaptations to Climate Change: Dryland Wheat Systems in the Pacific Northwest United States. *Agriculture, Ecosystems and Environment*. published online. <https://doi.org/10.1016/j.agee.2017.03.017>
- Antle, J.M. and C.O. Stöckle. 2017. Climate Impacts on Agriculture: Insights from Agronomic-Economic Analysis. *Review of Environmental Economics and Policy* 11(2): 299–318. <https://doi.org/10.1093/reep/rex012>
- Antle, J., J. Jones and C. Rosenzweig. 2017. Next Generation Agricultural System Data, Models and Knowledge Products: Synthesis and Strategy. *Agricultural Systems* 155: 179-185.
- Antle, J., J. Jones and C. Rosenzweig. 2017. Next Generation Agricultural System Data, Models and Knowledge Products: Introduction. *Agricultural Systems* 155: 186-190.
- Antle, J.M., B.O. Basso, R.T. Conant, H.C.J. Godfray, J.W. Jones, M. Herrero, R.E. Howitt, B.A. Keating, R. Munoz-Carpena, C.E. Rosenzweig, and T.R. Wheeler. 2016. Towards a New Generation of Agricultural System Data, Models and Knowledge Products: Design and Improvement. *Agricultural Systems* 155: 255-268.
- Jones, J.W., J.M. Antle, B.O. Basso, K. Boote, R.T. Conant, I. Foster, H.C.J. Godfray, M. Herrero, R.E. Howitt, S. Janssen, B.A. Keating, R. Munoz-Carpena, C. Porter, C.E. Rosenzweig, and T.R. Wheeler. 2016. A Brief History of Agricultural Systems Models. *Agricultural Systems* 155: 240-254.
- Jones, J.W., J.M. Antle, B.O. Basso, K. Boote, R.T. Conant, I. Foster, H.C.J. Godfray, M. Herrero, R.E. Howitt, S. Janssen, B.A. Keating, R. Munoz-Carpena, C. Porter, C.E. Rosenzweig, and T.R. Wheeler. 2016. Towards a New Generation of Agricultural System Models, Data, and Knowledge Products: State of Agricultural Systems Science. *Agricultural Systems*. 155: 268-288.
- Janssen, S., C.H. Porter, A. D. Moore, I.N. Athanasiadis, I. Foster, J.W. Jones, J. Antle. 2016. Building an Open Web-Based Approach to Agricultural Data, System Modeling and Decision Support. *Agricultural Systems*. 155: 200-212.
- Capalbo, S.M., J.M. Antle and C. Seavert. 2017. Next generation data systems and knowledge products to support agricultural producers and science-based policy decision making. *Agricultural Systems* 155: 191-199. <http://dx.doi.org/10.1016/j.agsy.2016.10.009>
- Capalbo, S.M., J.M. Antle, C. Seavert, J. Way and L. Houston. 2017. Understanding Tradeoffs in the Context of Farm-Scale and Regional Impacts: An Application of Decision-Support Tools for Assessing Climate Smart Agriculture. *Climate Smart Agriculture - Building Resilience to Climate Change*. Springer. DOI 10.1007/978-3-319-61194-5.

- Kanter, D.R., M. Musumba, S.L.R. Wood, C. Palm, J. Antle, P. Balvanera, V.H. Dale, P. Havlik, K.L. Kline, R.J. Scholes, P. Thornton, P. Tittone, S. Andelman. 2016. Evaluating agricultural trade-offs in the age of sustainable development. *Agricultural Systems*. Published online.
- Rosenzweig, C., J. Antle, and J. Elliott (2016), Assessing impacts of climate change on food security worldwide, *Eos*, 97, doi:10.1029/2016EO047387. Published on 9 March 2016.
- Antle, J.M., R. Adhikari and S. Price. (2015). An Income-based Food Security Indicator for Agricultural Technology Impact Assessment, in Andrew Schmitz, P. Lynn Kennedy, Troy G. Schmitz (ed.) *Food Security in an Uncertain World (Frontiers of Economics and Globalization, Volume 15)* Emerald Group Publishing Limited, pp.81 - 96
- *Brown, M.E., J.M. Antle, P. Backlund, E.G. Carr, W.E. Easterling, M.K. Walsh, C. Ammann, W. Attavanich, C.B. Barrett, M.F. Bellemare, V. Dancheck, C. Funk, K. Grace, J.S.I. Ingram, H. Jiang, H. Maletta, T. Mata, A. Murray, M. Ngugi, D. Ojima, B. O'Neill, and C. Tebaldi. 2015. *Climate Change, Global Food Security, and the U.S. Food System*. 267 pages. Available online at http://www.usda.gov/oce/climate_change/FoodSecurity.htm. Abraham Lincoln Award, USDA.
- *Antle, J, S. Capalbo, and L. Houston. Using Big Data to to Evaluate Agro-environmental Policies, *Choices* 3rd Quarter 2015. AAEA Outstanding Article Award.
- Antle, J.M. 2015. "Climate Change, Vulnerability and Food Insecurity". *Choices*. Quarter 2. Available online: <http://choicesmagazine.org/choices-magazine/theme-articles/climate-change-and-agriculture-revisiting-the-evidence-and-potential-solutions/climate-change-vulnerability-and-food-insecurity>
- Rosenzweig, C., J.W. Jones, J.L. Hatfield, J.M. Antle, A.C. Ruane and C.Z. Mutter. (2015). The Agricultural Model Intercomparison and Improvement Project: Phase I Activities by a Global Community of Science. C. Rosenzweig and D. Hillel, eds. *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project Integrated Crop and Economic Assessments, Part 1*. London: Imperial College Press.
- Antle, J. M., R.O. Valdivia, K.J. Boote, S. Janssen, J.W. Jones, C.H. Porter, C. Rosenzweig, A.C. Ruane, and P.J. Thorburn. (2015). AgMIP's Trans-disciplinary Agricultural Systems Approach to Regional Integrated Assessment of Climate Impact, Vulnerability and Adaptation. C. Rosenzweig and D. Hillel, eds. *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project Integrated Crop and Economic Assessments, Part 1*. London: Imperial College Press.
- Claessens, L., Antle, J. M., Stoorvogel, J. J., Valdivia, R. O., Thornton, P. K., Herrero, M., 2015. Scoping Climate Change Adaptation Strategies for Smallholder Farmers in East Africa – A Multi-dimensional, Multi-scenario Impact Assessment. In: *Climate Change Challenges and Adaptations at Farm level: Case studies from Asia and Africa*, 138-145. Edited by N. Singh, C. Bantilan, K. Byjesh and S. Nedumaran. International Crops Institute for the Semi-Arid Tropics. India. Cabi climate change series; 9.
- Singh, Harbir, Nataraja Subash, Babooji Gangwar, Roberto Valdivia, John Antle, and Guillermo Baigorria. "Assessing Economic Impacts of Climate Change and Adaptation in Indo-Gangetic Basin." *Procedia Environmental Sciences* 29 (2015): 229-230.
- Valdivia, R.O., J.M. Antle, C. Rosenzweig, A.C. Ruane, J. Vervoort, M. Ashfaq, I. Hathie, S. Homann-Kee Tui, R. Mulwa, C. Nhemachena, P. Ponnusamy, H. Rasnayaka and H. Singh. (2015). Representative Agricultural Pathways and Scenarios for Regional Integrated Assessment of Climate Change Impact, Vulnerability and Adaptation. C. Rosenzweig and D. Hillel, eds. *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project Integrated Crop and Economic Assessments, Part 1*. London: Imperial College Press.

- Wallach, D., L.O. Mearns, M. Rivington, J.M. Antle and A.C. Ruane. Uncertainty in Agricultural Impact Assessment. C. Rosenzweig and D. Hillel, eds. *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project Integrated Crop and Economic Assessments, Part 1*. London: Imperial College Press, 2015.
- Porter, C., C. Villalobos, D. Holzworth, R. Nelson, J.W. White, I.N. Athanasiadis, M. Zhang, S. Janssen, R. Knapen, J.W. Jones, K.J. Boote, J. Hargreaves, J.M. Antle. 2015. Data Interoperability Tools for Regional Integrated Assessment. In C. Rosenzweig and D. Hillel, eds. *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project Integrated Crop and Economic Assessments, Part 1*. London: Imperial College Press, 2015.
- Antle, J.M., J. Stoorvogel and R. Valdivia. 2014. New Parsimonious Simulation Methods and Tools to Assess Future Food and Environmental Security of Farm Populations. *Philosophical Transactions of the Royal Society B* 369:20120280.
- Rosenzweig, C., J.W. Jones, J.L. Hatfield, A.C. Ruane, K.J. Boote, P. Thorburn, J.M. Antle, G.C. Nelson, C. Porter, S. Janssen, S. Asseng, B. Basso, F. Ewert, D. Wallach, G. Baigorria, and J.M. Winter. 2013. The Agricultural Model Intercomparison and Improvement Project (AgMIP): Protocols and Pilot Studies. *Ag. For. Meteor.* 170:166-182.
- Antle, J.M and S. Ogle. 2012. "Agricultural GHG Mitigation in the Central U.S. with No-Till: Accounting for Changes in Soil C, N₂O and Fuel Use." *Climatic Change* 111:609-625.
- Bagamba, F., B. Bashaasha, L. Cladssens and J. Antle. 2012. Assessing Climate Change Impacts and Adaptation Strategies for Smallholder Agricultural Systems in Uganda. *African Crop Science Journal*, Vol. 20, Issue Supplement s2, pp. 303 - 316.
- Claessens, L., J.M. Antle, J.J. Stoorvogel, R.O. Valdivia, P.K. Thornton, and M. Herrero. 2012. A Method for Evaluating Climate Change Adaptation Strategies for Small-Scale Farmers Using Survey, Experimental and Modeled Data. *Agricultural Systems* 111:85-95.
- Valdivia, R., J.M. Antle and J. Stoorvogel. 2012. "Coupling the Tradeoff Analysis Model with a Market Equilibrium Model to Analyze Economic and Environmental Outcomes of Agricultural Production Systems." *Agricultural Systems* 110: 17-29.
- Valdivia, R., J. Stoorvogel and J.M. Antle. 2012. "Economic and Environmental Impacts of Climate Change and Socio-Economic Scenarios: A Case Study of a Semi-Subsistence Agricultural System." *The International Journal of Climate Change Impacts and Responses* 3(2);157-175.
- Grace, P., J. Antle, P. Aggarwal, S. Ogle, K. Paustian and B. Basso. 2012. "Soil carbon sequestration and associated economic costs for farming systems of the Indo- Gangetic Plain: a meta-analysis." *Agriculture, Ecosystems and Environment* 146: 137- 146.
- Antle, J.M. 2011. Parsimonious Multi-Dimensional Impact Assessment. *American Journal of Agricultural Economics* 93(5): 1292-1311.
- Antle, J.M. and S.M. Capalbo 2010. "Adaptation of Agricultural and Food Systems to Climate Change: An Economic and Policy Perspective." *Applied Economic Perspectives and Policy* 32:386-416.
- Antle, J.M., B. Diagana, J. Stoorvogel and R. Valdivia (2010), "Minimum-Data Analysis of Ecosystem Service Supply in Semi-Subsistence Agricultural Systems: Evidence from Kenya and Senegal." *Australian Journal of Agricultural and Resource Economics* 54:601-617.
- Antle, J.M. (2010). "Asymmetry, Partial Moments and Production Risk." *American Journal of Agricultural Economics* 92:1294-1309.
- Antle, J.M. (2010), "Do Economic Variables follow Scale or Location-Scale Distributions?" *American Journal of Agricultural Economics* 92(1):196-204.
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- Claessens, L., J.J. Stoorvogel, and J.M. Antle. (2009). "Economic viability of adopting dual-purpose sweetpotato in Vihiga district, Western Kenya: a minimum data approach." *Agricultural Systems*. 99:13-22.
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- Antle, J.M., J.J. Stoorvogel, and R.O. Valdivia. (2007). "Assessing the Economic Impacts of Agricultural Carbon Sequestration: Terraces and Agroforestry in the Peruvian Andes." *Agriculture, Ecosystems and Environment* 122(4):435-445.
- Diagana, B., J. Antle, J. Stoorvogel, and K. Gray. (2007). "Economic Potential for Soil Carbon Sequestration in the Niore Region of Senegal's Peanut Basin." *Agricultural Systems* 94(1):26-37.
- Antle, J.M., S.M. Capalbo, K.H. Paustian, and M.K. Ali. (2007). "Estimating the Economic Potential for Agricultural Soil Carbon Sequestration in the Central United States Using an Aggregate Econometric-Process Simulation Model." *Climatic Change* 80(1-2):145-171.
- Mooney, S., K. Gerow, J. Antle, S. Capalbo, and K. Paustian. (2007). "Reducing Standard Errors by Incorporating Spatial Autocorrelation into a Measurement Scheme for Soil Carbon Credits." *Climatic Change* 80(1-2):55-72.
- Antle, J.M. and J.J. Stoorvogel. (2006). "Predicting the Supply of Ecosystem Services from Agriculture." *American Journal of Agricultural Economics* 88(5):1174-1180.
- Antle, J.M., J.J. Stoorvogel, and R.O. Valdivia. (2006). "Multiple Equilibria, Soil Conservation Investments, and the Resilience of Agricultural Systems." *Environment and Development Economics* 11(4):477-492.
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- Antle, J.M. and J.J. Stoorvogel. (2006). "Incorporating Systems Dynamics and Spatial Heterogeneity in Integrated Assessment of Agricultural Production Systems." *Environment and Development Economics* 11(1):39-58.
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INTERNATIONAL RESEARCH & ADVISORY ACTIVITIES

- Co-PI and Economics Team Co-Leader, Ag. Model Inter-comp and Improvement Project, 2010-present
- Consultant to WorldFish Center, 2011- 2013
- Consultant to Bill and Melinda Gates Foundation, 2009-2011
- Consultant to International Potato Center, Climate Adaptation Project, 2006-2011
- Consultant to Food and Agriculture Organization of the U.N., Ecosystems Services Project, 2005-2007
- Principal Investigator, USAID Soil Management Collaborative Research Support Program, 1996-2008
- Consultant to the Agricultural Research Corporation of Brazil (EMBRAPA), 1996
- Consultant to the Environment Division, OECD, 1994-1995
- Consultant to the World Bank and the National Ag & Forestry Inst, Mexico, 1992-1995
- Principal Investigator, collaborator with Int. Rice Research Inst. and Int. Potato Center, 1989-2008
- Consultant to the Agricultural Sciences Division, Rockefeller Foundation, 1987-1988
- Consultant to the Economics Program, Intl Crops Res Inst for Semi-Arid Tropics, India, 1984-1986
- Principal Investigator, Farm Efficiency Activity, University of California-Egypt Project, 1980-1983