

SUSAN M. CAPALBO

**Office of the Vice President for Research,
Creativity and Technology Transfer
207 Montana Hall
P.O. Box 172460
Montana State University
Bozeman, MT 59717-2460
Fax: (406) 994-2893**

**Department of Agricultural Economics
and Economics
303 Linfield Hall
P.O. Box 172920
Montana State University
Bozeman, MT 59717-2920
Fax: (406) 994-4838**

Phone: (406) 994-5619

E-mail: scapalbo@montana.edu

**Web Sites: www2.montana.edu/scapalbo, www.bigskyco2.org,
www.climate.montana.edu, www.casmgs.montana.edu**

EDUCATION:

Ph.D., Agricultural Economics, University of California-Davis, 1982

M.S., Resource Economics, University of Rhode Island, 1976

B.A., Economics, University of Rhode Island, 1974

EMPLOYMENT HISTORY:

Current:

Director of Special Projects, Office of the Vice President for Research, Creativity and Technology Transfer, Montana State University, Bozeman, MT, August 15, 2002-present (75% time)

Professor, Department of Agricultural Economics and Economics, Montana State University, Bozeman, MT, 2002-present (25% time)

Previous:

Assistant/Associate Professor, Department of Agricultural Economics and Economics, Montana State University, Bozeman, MT, 1987-2002

Visiting Research Fellow, National Center for Food and Agricultural Policy, Resources for the Future, Washington, DC; and Visiting Scholar, ERS/USDA, Washington, DC, 1989-1990

Visiting Lecturer, University of California-Davis, 1987

Fellow, National Center for Food and Agricultural Policy, Resources for the Future, Washington, DC, 1984-1986

Assistant Professor, Department of Agricultural and Resource Economics, University of Maryland, College Park, MD, 1982-1983

Postgraduate Research Agricultural Economist, Department of Agricultural Economics, University of California-Davis, 1980-1982

Economist, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce, Washington, DC, 1976-1977

HONORS AND FELLOWSHIPS:

Bryn Mawr College and HERS, Mid-America Summer Institute for Women in Higher Education Administration, June-July 2002

Honorable Mention, Outstanding Journal Article, Journal of Agricultural and Resource Economics, 1994

Outstanding Journal Article Award, Northeastern Journal of Agricultural and Resource Economics, 1992

Phi Kappa Phi, Omicron Delta Epsilon

Visiting Research Fellow, National Center for Food and Agricultural Policy, Resources for the Future, 1989-1990

AAEA Travel Grant Award for IAAE Meetings, 1985

Outstanding Teaching Assistantship Award, University of California-Davis, 1978

Henry Jastro Regents Fellowship, University of California-Davis, 1978-1980

Honor Society, University of Rhode Island, 1970-1974

LEADERSHIP/SERVICE:**National and Regional Boards and Committees:**

Montana NSF/EPSCOR Advisory Committee, 2004-2007
 Lariat Network/Internet2 Task Force, 2004-2006
 NSF, Panel Review for Research on Gender in Science and Engineering, 2004
 USDA/NRI, Watershed Processes and Water Resources Panel, 2004
 USDA/CSREES Departmental Site Review for Utah State University, 2001
 USDA/CSREES Departmental Site Review for University of Nevada-Reno, 1998
 NRICGP/USDA Panel Manager, Markets and Trade, 1995-1996
 National Research Council, Water Resource and Technology Board subcommittee on "Valuing Groundwater,"
 1994-1997
 USDA review team for University of Nevada-Reno, Dept of Ag Econ, 1997
 NRI Review Panel for Markets and Trade, Washington, DC, May 1994
 Regional Project W-133, Costs and Benefits for Resource Valuation, since 1994

Professional Organizations:

AAEA Executive Board, 2002-2005
 Chair, Quality of Research Discovery Award, AAEA Awards Committee, 2000, 2001
 Masters' Thesis Award Committee, Western Agricultural Economics Association, Spring 2001
 AEA Awards Committee member of Quality of Research Discovery Award, 1999
 AAEA Task Force on "Economic and Environmental Data Needs," 1994-1997
 Director, Western Agricultural Economics Association, 1992-1994
 Chairperson, AAEA Quality of Research Discovery Award Committee, 1991, 1992
 American Agricultural Economics Association, Awards Selection Committee, 1988-1991
 Chairperson, Western Agricultural Economics Association, M.S. Thesis Award Committee, 1990
 Western Agricultural Economics Association, Awards Selection Committee, 1989, 1990
 Member, American Agricultural Economics Association
 Member, American Economic Association
 Member, Canadian Economic Association
 Member, Western Agricultural Economics Association
 Member, Association of Environmental and Resource Economists
 Member, American Association of University Women

Editorial Boards:

Associate Editor, *American Journal of Agricultural Economics*, 1990-1994
 Special Review Committee, *American Journal of Agricultural Economics* 75th Anniversary Issue, 1992
 Editorial Council, *Western Journal of Agricultural Economics*, 1988-1990
 Reviewer for: Selected papers, American Agricultural Economics Association, 1988-92 and Western Agricultural
 Economics Association 1989-1992; *American Journal of Agricultural Economics*; *Western Journal of
 Agricultural Economics*; *Journal of Marine Resource Economics*; *Journal of Economics and Environmental
 Management*; *Journal of Productivity Analysis*; *Land Economics*; *Resources for the Future Press*; *Westview
 Press*, *Review of Agricultural Economics*
 Reviewer for National Marine Fisheries Service Sea Grant Proposals

MSU Departmental and University Service:

President's Cabinet, 2002-ongoing
 Information Technology Advisory Committee, 2004-2005
 MSU Athletic Committee, 2002-2005
 College of Agriculture, P&T Committee, 2002-2003
 Advisory Committee, Diversity Awareness Office, VP for Student Affairs, 2002
 NCAA Certification Steering Committee, 2001-2002
 NCAA Certification Subcommittee Chair, *Equity, Welfare, and Sportsmanship*, 2001-2002

MSU Salary Review Committee, 2000-2002
 Search Committee, Department of Land, Resources, and Environmental Sciences, Assistant Professor of Landscape Analysis and Management, 2001-2002
 Search Committee, College of Agriculture, Assistant/Associate Professor in Agricultural Biological Risk Analysis, 2001
 MSU EPSCoR Infrastructure Proposal Development Committee, Winter-Spring 2000
 MSU Search Committee, Dean of College of Business, 2000
 Search Committee, Dean, College of Business, 1999-2000
 Search Committee, Director of Health Sciences, 1997
 College of Agriculture, Promotion and Tenure Committee, 1995-1996
 University Grievance Committee, 1994-1996
 University Budget Committee, 1993-1996
 University Productivity, Quality and Outcomes Task Force, 1994-1995
 University Long Range Planning Committee, 1992-1997, Chair 1993-1995
 Search Committee for Director, Yellowstone Center for Mountain Environments, 1993-1994
 P&T Committee, Entomology Research Lab, 1993
 Departmental Advisory Committee, 1988-89, 1989-90, 1991-92, 1992-93
 Search Committee for the Dean of College of Agriculture and Director, AES, 1991-1992
 Plant and Soil Science Search/Recruitment Committee, 1990-1991
 Departmental Search/Recruitment Committee, 1987-88 (member), 1988-89 (member), 1990-91 (co-chair)

RESEARCH AND TEACHING FIELDS:

Research Expertise:

Multidisciplinary Research:

Environmental-Economic Tradeoff Analysis

Climate Change and Carbon Sequestration

Natural Resources; Environmental Quality

Productivity Analysis and Production Theory

Rural Health Care and Cost-Benefit Analysis

Teaching Expertise:

Production and Development Economics

Environmental Economics

Natural Resources Valuation

Benefit Cost Analysis

Microeconomics, Principles and Intermediate

International Trade

GRANTSMANSHIP:

Awarded:

“Big Sky Carbon Sequestration Partnership, Phase II.” Principal investigator: S.M. Capalbo. Department of Energy, Fossil Energy Research and Development Program. October 2005-September 2009, \$17,900,000. Further information available at www.bigskyco2.org.

“Investing in People: Valuing a More Diverse Engineering Workforce.” National Science Foundation, October 2005-September 2006, \$191,422. Principal Investigator: S.M. Capalbo; Co-Investigators: A. Camper and N. Ballenger.

“Consortium for Agricultural Soils Mitigation of Greenhouse Gases (CASMGs).” Principal investigator/coordinator for MSU: S.M. Capalbo. \$15,000,000 received from USDA Crop Insurance legislation. MSU share of funding to be approximately \$1,320,000 for 2002-2003 (extended to August 2006). Further information available at www.casmgs.montana.edu.

- “Big Sky Carbon Sequestration Partnership.” Principal investigator: S.M. Capalbo. Department of Energy, Fossil Energy Research and Development Program. October 2003-September 2005, \$1,997,889. Further information available at www.bigskyco2.org.
- “Agricultural Research Leadership for the 21st Century.” USDA/ERS. Principal investigator: S.M. Capalbo. September 2003-September 2005, \$20,000.
- “Close Coupling of Ecosystem and Economic Models: Adaptation of Central U.S. Agriculture to Climate Change.” Research proposal funded by USEPA program on Assessing the Consequences of Interactions between Human Activities and a Changing Climate. Principal investigators: J.M. Antle, S.M. Capalbo, S. Mooney, E. Elliott, and K. Paustian; October 2000-September 2003, \$1,420,860 (extended to February 2005). Summary available at www.climate.montana.edu.
- “A Measurement and Monitoring Protocol for Policies Designed to Sequester Soil Carbon.” USDA-NRI, Principal investigators: S. Mooney, J.M. Antle, and S.M. Capalbo, 2002-2003, \$58,000 (extended to November 2004).
- “The Environment, Resource Use and Society.” Part of the “Reinventing the Core: Research/Creative Experience” project funded by the William and Flora Hewlett Foundation. Principal investigators: S.M. Capalbo and S. Mooney; AY 2002-2003, \$4,000.
- “Economically Optimal Spatial Scale for Integrated Analysis of Agricultural Production Systems.” National Science Foundation, Methods and Models for Integrated Assessment Program. Principal investigators: J.M. Antle, S.M. Capalbo, S. Mooney, and K. Paustian; June 2000-November 2003, \$275,000. Summary available at www.climate.montana.edu.
- “Policy Design and Implications for Ag Soil C Sequestration.” USDA National Research Initiative Competitive Grants Program. Principal investigators: J.M. Antle, S.M. Capalbo, and S. Mooney; FY 2000-2001, \$70,000. (One-year extension to 6-30-02.)
- “Consortium for Agricultural Soils Mitigation of Greenhouse Gases (CASMGs).” Environmental Protection Agency. Principal investigators: J.M. Antle and S.M. Capalbo; MSU portion of grant for FY 2000-2001, \$23,500. Summary available at www.climate.montana.edu.
- “Testing Hypotheses in Integrated Impact Assessments: Climate Variability and Economic Adaptation in Great Plains Agriculture.” U.S. Department of Energy, National Institute for Global Environmental Change. Principal investigators: J.M. Antle, S.M. Capalbo, and J. Hewitt. 2-year proposal submitted in 1998, first year funding approved for 1998-1999, \$130,000; second year funding approved for 1999-2000, \$130,000. (Extension to 6-30-02.)
- “Heterogeneity and Scale in Modeling the Economic Impacts of Climate Change in Great Plains Agriculture.” DOE/NIGEC. Principal investigators: J. Antle, S. Capalbo, and J. Hewitt; 1996-1999, \$520,693.
- “Analyzing Health Services Decision-Making in Rural Montana Communities.” Federal Office of Rural Health Care Policy, DLHHS. Principal investigators: S.M. Capalbo, R. Flaherty, and J. Shreffler; 1996-1997, \$49,893.
- “Economic and Environmental Tradeoffs in Assessing Sustainability: A Study of Dryland Agriculture.” USDA/NRICGP. Principal investigators: S.M. Capalbo and J.B. Johnson; October 1995-September 1997, \$130,475.
- “Economic Impact Assessment of IPM: Advisory Committee.” USDA/ERS proposal. Principal investigators: J.M. Antle and S.M. Capalbo; June 1995-September 1997, \$23,000.
- “Heterogeneity and Scale in Modeling the Economic Impacts of Climate Change on Agriculture in Great Plains and Northern Rocky Mountains Ecosystems.” Seed money grant from Great Plains Regional Center for Global Climate Change. Principal investigators: J.M. Antle, S.M. Capalbo, and J.A. Hewitt; Summer 1995, \$14,985.
- “Economics and Sustainability of Crop and Livestock Agriculture in the Northern Plains and Foothill Mountain Environments.” USDA/CSRS/ACE. Principal investigators: S.M. Capalbo, J.M. Antle, and J.B. Johnson; June 1992-June 1996, \$111,079.
- “Economic and Physical Model Integration for Analysis of the Impacts of Agricultural Chemical Use on Ground Water Quality.” USDA/ERS/RTD. Principal investigators: J.M. Antle and S.M. Capalbo; June 1992-September 1995, \$131,314. (Additional \$10,000, November 1993).
- “Agricultural Chemical Use and Sustainability of Andean Potato Production.” Rockefeller Foundation. Principal investigators: J.M. Antle and S.M. Capalbo (MSU) and C. Crissman (CIP); 1990-1995, \$337,000.
- “International Comparisons of Agricultural Productivity: Theory and Measurement.” Cooperative agreement with USDA/ERS/ATAD, No. 58-3AEL-8-00062. Principal investigator: S.M. Capalbo; August 1988-September 1991, \$36,793.

- “Economic Analysis of the Bullhead Water Quality Project.” Principal investigators: J. Antle, S. Capalbo, and D. Griffith; November 1990-September 1991, \$6,000.
- “Measurement of Agricultural Pollution Externalities: Towards an Integration of Disciplinary Models, Methods, and Data.” Cooperative agreement with USDA/ERS/RTD, No. 58-3AEM-9-80058. Principal investigator: S.M. Capalbo; September 1989-May 1990, \$29,754.
- “Environmental and Health Costs of Agricultural Chemical Use in Southeast Asia Rice Production.” Rockefeller Foundation. Principal investigators: J.M. Antle, S.M. Capalbo (MSU), and P. Prabhu (IRRI); January 1989-December 1990, \$158,500.
- “The Measurement and Evaluation of Agricultural Pollution Externalities.” Resources for the Future Small Grant. Principal investigators: J.M. Antle and S.M. Capalbo; July 1988-June 1989, \$19,236.
- “Agricultural Productivity: Measurement Issues, Data Development, and Policy Linkages.” Cooperative agreement with USDA, No. 58-319V-6-00059. Principal investigators: K. Farrell and S.M. Capalbo; May 1986-September 1987, \$35,000.
- “Productivity in the Food and Agricultural Sector: Sources of Growth, Potential Constraints, and National Public Policy Implications.” Rockefeller Foundation Grant No. RF-83012 to Resources for the Future. Principal investigators: K. Farrell and S.M. Capalbo; 1984-1986, \$300,000.

PUBLICATIONS AND PRESENTATIONS:

Manuscripts Under Review and in Preparation:

- Antle, J.M., S.M. Capalbo, K.H. Paustian, and M.K. Ali. “Estimating the Economic Potential for Agricultural Soil Carbon Sequestration in the Central United States Using an Aggregate Econometric-Process Simulation Model.” Submitted to *Climatic Change*, February 2005.
- Capalbo, S.M., J.M. Antle, and M.K. Ali. “Inputs of Tillage on Carbon Sequestration Opportunities in Nebraska: A Spatial Analysis Model.” Manuscript in preparation, 2005.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K. Paustian. “Incorporating Uncertainty in Integrated Assessment Modeling.” Manuscript in preparation, 2005.
- Mooney, S., K. Gerow, J. Antle, S. Capalbo, and K. Paustian. “The Value of Incorporating Spatial Autocorrelation into a Measurement Scheme to Implement Contracts for Carbon Credits.” Submitted to *Climatic Change*, February 2005.

Refereed Journal Publications:

- Antle, J.M., S.M. Capalbo, E.T. Elliott, and K.H. Paustian. (2004). “Adaptation, Spatial Heterogeneity, and the Vulnerability of Agricultural Systems to Climate Change and CO₂ Fertilization: An Integrated Assessment Approach.” *Climatic Change* 64(3):289-315.
- Capalbo, S.M., J.M. Antle, S. Mooney, and K.H. Paustian. (2004). “Sensitivity of Carbon Sequestration Costs to Economic and Biological Uncertainties.” *Environmental Management* 33(S1):S238-S251.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K. Paustian. (2004). “Design and Costs of a Measurement Protocol for Trades in Soil Carbon Credits.” *Canadian Journal of Agricultural Economics* 52(3):257-287.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K.H. Paustian. (2004). “Influence of Project Scale and Carbon Variability on the Costs of Measuring Soil Carbon Credits.” *Environmental Management* 33(S1):S252-S263.
- Antle, J.M., S.M. Capalbo, S. Mooney, E.T. Elliott, and K.H. Paustian. (2003). “Spatial Heterogeneity, Contract Design, and the Efficiency of Carbon Sequestration Policies for Agriculture.” *Journal of Environmental Economics and Management* 46(2):231-250.
- Antle, J.M., S.M. Capalbo, and S. Mooney. (2002). “Farming the Environment: Spatial Variation and Economic Efficiency in Soil; Developing Policies for Carbon Sequestration and Agriculture.” *Choices* 17(4):24-25.
- Capalbo, S.M., T.J. Kruzich, and C.N. Heggem. (2002). “Strengthening a Fragile Rural Health Care System: Critical Access Hospitals and Telemedicine.” *Choices* 17(4):26-29.
- Antle, J.M. and S.M. Capalbo. (2002). “Agriculture as a Managed Ecosystem: Policy Implications.” *Journal of Agricultural and Resource Economics* 27(1):1-15.
- Antle, J.M., S.M. Capalbo, S. Mooney, E.T. Elliott, and K.H. Paustian. (2002). “A Comparative Examination of the Efficiency of Sequestering Carbon in US Agricultural Soils.” *American Journal of Alternative Agriculture* 17(3):109-115.

- Antle, J.M., S.M. Capalbo, S. Mooney, E.T. Elliott, and K.H. Paustian. (2002). "Sensitivity of Carbon Sequestration Costs to Soil Carbon Rates." *Environmental Pollution* 116(3):413-422.
- Antle, J.M. and S.M. Capalbo. (2001). "Econometric-Process Models for Integrated Assessment of Agricultural Production Systems." *American Journal of Agricultural Economics* 83(2):389-401.
- Antle, J.M., S.M. Capalbo, E.T. Elliott, H.W. Hunt, S. Mooney, and K.H. Paustian. (2001). "Research Needs for Understanding and Predicting the Behavior of Managed Ecosystems: Lessons from the Study of Agroecosystems." *Ecosystems* 4(8):723-735.
- Antle, J.M., S.M. Capalbo, S. Mooney, E. Elliott, and K. Paustian. (2001). "Economic Analysis of Agricultural Soil Carbon Sequestration: An Integrated Assessment Approach." *Journal of Agricultural and Resource Economics* 26(2):344-367.
- Antle, J.M., S. Capalbo, J. Johnson, and D. Miljkovic. (1999). "The Kyoto Protocol: Economic Effects of Energy Prices on Northern Plains Dryland Grain Production." *Agricultural and Resource Economics Review* 28(1):96-105.
- Capalbo, S.M. and C.N. Heggem. (1999). "Valuing Rural Health Care: Issues of Access and Quality." *American Journal of Agricultural Economics* 81(3):674-679. (invited paper, peer reviewed)
- Shreffler, M.J., S.M. Capalbo, R.J. Flahery, and C.N. Heggem. (1999). "Community Decision-Making About Critical Access Hospitals: Lessons from Montana's Medical Assistance Facility Program." *The Journal of Rural Health* 15(2):180-188.
- Capalbo, S.M. and C.N. Heggem. (1999). "Innovations in the Delivery of Health Care Services to Rural Communities: Telemedicine and Limited-Service Hospitals." *Rural Development Perspectives* 14(3):8-15.
- Antle, J.M., S.M. Capalbo, and C.C. Crissman. (1994). "Econometric Production Models with Endogenous Input Timing: An Application to Ecuadorian Potato Production." *Journal of Agricultural and Resource Economics* 19(1):1-18.
- Antle, J.M. and S.M. Capalbo. (1994). "Pesticides, Productivity, and Farmer Health: Implications for Regulatory Policy and Agricultural Research." *American Journal of Agricultural Economics* 76(3):598-602.
- Friesen, J., S.M. Capalbo, and M. Denny. (1992). "Dynamic Factor Demand Equations in U.S. and Canadian Agriculture." *Agricultural Economics* 6(3):251-266.
- Antle, J.M. and S.M. Capalbo. (1991). "Physical and Economic Model Integration for Measurement of the Environmental Impacts of Agricultural Chemical Use." *Northeastern Journal of Agricultural and Resource Economics* 20(1):68-82.
- Friesen, J., S.M. Capalbo, and M. Denny. (1991). "Testing Short Run Factor Demand Models in Canadian and U.S. Agriculture." *Canadian Journal of Economics* 24(3):624-638.
- Capalbo, S.M., V.E. Ball, and M.G.S. Denny. (1990). "International Comparisons of Agricultural Productivity: Development and Usefulness." *American Journal of Agricultural Economics* 72(5):1292-1297.
- Capalbo, S.M. and J.M. Antle. (1989). "Incorporating Social Costs in Returns to Agricultural Research." *American Journal of Agricultural Economics* 71(2):458-463.
- Capalbo, S.M. (1988). "Measuring the Components of Aggregate Productivity Growth in U.S. Agriculture." *Western Journal of Agricultural Economics* 13(1):53-62.
- Capalbo, S.M. (1986). "Temporary Equilibrium Production Models for a Common Property Renewable Resource Sector." *Journal of Econometrics* 33(1):263-284.
- Capalbo, S.M. and M. Denny. (1986). "Testing Long-Run Productivity Models for the Canadian and U.S. Agricultural Sectors." *American Journal of Agricultural Economics* 68(3):615-625.

Refereed Books:

- Crissman, C.C., J.M. Antle, and S.M. Capalbo, eds. (1998). *Economic, Environment, and Health Tradeoffs in Agriculture: Pesticides and the Sustainability of Andean Potato Production*. Dordrecht/Boston/London: Kluwer Academic Publishers, 12 chapters, 281 pp.
- Capalbo, S.M. and J.M. Antle, eds. (1988). *Agricultural Productivity: Measurement and Explanation*. Washington, DC: Resources for the Future, Johns Hopkins University Press, 403 pp.

Refereed Chapters in Books and Other Peer-Reviewed Publications:

- Antle, J., S. Capalbo, and K. Paustian. "Ecological and Economic Impacts of Climate Change in Agricultural Systems: An Integrated Assessment Approach." Chapter 5 in *Climate Change and Variability: Local Impacts and Response*. Edward Elgar Publishing, in press December 2005.
- Mooney, S., J. Antle, S. Capalbo, and K. Paustian. (2004). "How Much Could It Cost to Measure Soil Carbon in Montana?" *MontGuide*, MT200409 AG, Extension Service, Montana State University, Bozeman, October.
- Antle, J.M., S.M. Capalbo, and S. Mooney. (2003). "Soil Carbon Sequestration in Agriculture: Opportunities Vary Throughout Montana." *MontGuide*, MT200313 AG, Extension Service, Montana State University, Bozeman, December.
- Antle, J.M., S.M. Capalbo, S. Mooney, E. Elliott, and K. Paustian. (2003). "Soil Carbon Sequestration in Agriculture: Can Agriculture Compete in a Market for Carbon?." *MontGuide*, MT200314 AG, Extension Service, Montana State University, Bozeman, December.
- Antle, J.M. and S.M. Capalbo. (2002). "Agriculture as a Managed Ecosystem: Implications for Econometric Analysis of Production Risks." In R.E. Just and R.D. Pope, eds., *A Comprehensive Assessment of the Role of Risk in Agriculture*, Boston: Kluwer Academic Publishers, pp. 243-264.
- Capalbo, S.M. and C.N. Heggem. (1999). "Evaluating Telemedicine in Rural Settings: Issues and Applications." In proceedings *Telecommunications and Rural Issues* workshop, sponsored by ERS-USDA, TVA Rural Studies, and the Western Rural Development Center, September 14-15, 1998.
- Antle, J.M., S.M. Capalbo, J.B. Johnson, and W. Zidack. (1999). "Prices, Net Returns and Land Use in Northern Great Plains Dryland Grain Production." In J.M. Antle and V. Smith, eds., *The Economics of World Wheat Markets*, Oxon, UK: CAB International Publishers, pp. 407-420.
- Crissman, C.C., J.M. Antle, and S.M. Capalbo. (1998). "Introduction and Overview." In C.C. Crissman, J.M. Antle, and S.M. Capalbo, eds., *Economic, Environment, and Health Tradeoffs in Agriculture: Pesticides and the Sustainability of Andean Potato Production*. Dordrecht/Boston/London: Kluwer Academic Publishers, pp. 1-18.
- Antle, J.M., S.M. Capalbo, and C.C. Crissman. (1998). "Tradeoffs in Policy Analysis: Conceptual Foundations for Disciplinary Integration." In C.C. Crissman, J.M. Antle, and S.M. Capalbo, eds., *Economic, Environment, and Health Tradeoffs in Agriculture: Pesticides and the Sustainability of Andean Potato Production*. Boston: Kluwer Academic Publishers, pp. 21-40.
- Antle, J.M., S.M. Capalbo, and C.C. Crissman. (1998). "Econometric and Simulation Analysis of Carchi Potato Production." In C.C. Crissman, J.M. Antle, and S.M. Capalbo, eds., *Economic, Environment, and Health Tradeoffs in Agriculture: Pesticides and the Sustainability of Andean Potato Production*. Dordrecht/Boston/London: Kluwer Academic Publishers, pp. 145-179.
- Antle, J.M., S.M. Capalbo, D.C. Cole, C.C. Crissman, and R.J. Wagenet. (1998). "Integrated Economic, Environmental, and Health Impacts of Pesticide Use in Carchi Potato Production." In C.C. Crissman, J.M. Antle, and S.M. Capalbo, eds., *Economic, Environment, and Health Tradeoffs in Agriculture: Pesticides and the Sustainability of Andean Potato Production*. Dordrecht/Boston/London: Kluwer Academic Publishers, pp. 243-267.
- Antle, J.M. and S.M. Capalbo. (1998). "Quantifying Agriculture-Environment Tradeoffs to Assess Environmental Impacts of Domestic and Trade Policies." In J.M. Antle, J.N. Lekakis, and G.P. Zanos, eds., *Agriculture, Trade, and the Environment: The Impact of Liberalization on Sustainable Development*. Cheltenham, UK: Edward Elgar Publishers, pp. 25-51.
- Capalbo, S.M. and J.M. Antle. (1998). "Sustainability and Production Technology: Measuring Sustainability for Agricultural Production Systems." In G.E. D'Souza and T.G. Gebremedhin, eds., *Sustainability in Agricultural and Rural Development*. Aldershot, UK and Brookfield, VT: Ashgate Publishing Company, pp. 67-84.
- National Research Council. (1997). *Valuing Ground Water: Economic Concepts and Approaches*, National Academy Press, Washington, DC (part of a multidisciplinary research team, primary responsibility for two of the six chapters in the book).
- Antle, J.M. and S.M. Capalbo. (1997). "Integrated Assessment of IPM Impacts: An Overview." In S. Lynch, C. Greene, and C. Kramer-LeBlanc, eds., *Proceedings of the Third National IPM Symposium/Workshop*, USDA/ERS Publication Number 1542, pp. 33-40.
- Antle, J.M. and S.M. Capalbo. (1995). "Measurement and Evaluation of the Impacts of Agricultural Chemical Use: A Framework for Analysis." In P.L. Pingali and P.A. Rogers, eds., *Impacts of Pesticides on Farmer Health and the Rice Environment*. Boston: Kluwer Academic Publishers, pp. 23-57.

- Antle, J.M. and S.M. Capalbo. (1993). "Integrating Economic and Physical Models for Analyzing Environmental Effects of Agricultural Policy on Nonpoint-Source Pollution." In C.S. Russell and J.F. Shogren, eds., *Theory, Modeling and Experience in the Management of Nonpoint-Source Pollution*. Boston: Kluwer Academic Publishers, pp. 155-178.
- Capalbo, S.M., M. Denny, A. Hogue, and C.E. Overton. (1991). "Methodologies for Comparisons of Agricultural Output, Input, and Productivity: A Review and Synthesis." Staff Report No. AGES 9122, Washington, DC: USDA, Economic Research Service, 48 pp.
- Capalbo, S.M. (1990). "Technical Change in Agriculture: An Overview of the Effects of Public Policies." *Technology and Agricultural Policy: Proceedings of a Symposium*. Washington, DC: National Academy of Sciences.
- Capalbo, S.M. and M.M. Miller. (1988). "Bridging the Gap Between Economic Theory and Fisheries Management: The Ten-Year MFCMA Experience." Edited volume of papers in *Fisheries Review* 49(3).
- Capalbo, S.M. (1988). "A Comparison of Econometric Models for U.S. Agricultural Productivity and Aggregate Technology." In S.M. Capalbo and J.M. Antle, eds., *Agricultural Productivity: Measurement and Explanation*. Washington, DC: Resources for the Future. Johns Hopkins University Press, pp. 159-188.
- Capalbo, S.M. and T.V. Vo. (1988). "A Review of the Evidence on Agricultural Productivity and Aggregate Technology." In S.M. Capalbo and J.M. Antle, eds., *Agricultural Productivity: Measurement and Explanation*. Washington, DC: Resources for the Future. Johns Hopkins University Press, pp. 96-137.
- Antle, J.M. and S.M. Capalbo. (1988). "An Introduction to Production Theory and Productivity Measurement." In S.M. Capalbo and J.M. Antle, eds., *Agricultural Productivity: Measurement and Explanation*. Washington, DC: Resources for the Future, Inc., Johns Hopkins Press. pp. 17-95.
- Antle, J.M. and S.M. Capalbo. (1986). "Pesticides and Public Policy: A Program for Research and Policy Analysis." In T. Phipps, P. Crosson, and K. Price, eds., *Agriculture and the Environment: Annual Policy Review*. Washington, DC: National Center for Food and Agricultural Policy, Resources for the Future, pp. 155-174.
- Capalbo, S.M. and R.J. Howitt. (1985). "Bioeconomic Supply and Imperfect Competition: A Policy Model for an Internationally Utilized Resource." In *Proceedings of Second Conference of International Institute of Fisheries Economics and Trade*, July.
- Farrell, K. and S.M. Capalbo. (1985). "Natural Resource and Environmental Dimensions of Agricultural Development: Coping with the Tradeoffs." In *Proceedings of the 1985 International Association of Agricultural Economists Conference*.

Technical Reports:

- Capalbo, S.M. (2005). "Big Sky Carbon Sequestration Partnership: Phase I." Final Technical Report, September 26, 2003 thru September 25, 2005, to the U.S. Department of Energy, December.

Website Publications:

- Antle, J.M., S.M. Capalbo, and J.A. Hewitt. (2001). "Testing Hypotheses in Integrated Impact Assessments: Climate Variability and Economic Adaptation in Great Plains Agriculture." Great Plains Region Annual Progress Report, July 1, 2000 to June 30, 2001. The National Institute for Global Environmental Change (NIGEC). <http://nigec.ucdavis.edu/publications/index.htm>.
- Antle, J.M., S.M. Capalbo, and J.A. Hewitt. (2000). "Testing Hypotheses in Integrated Impact Assessments: Climate Variability and Economic Adaptation in Great Plains Agriculture." Great Plains Region Annual Progress Report, July 1, 1999 to June 30, 2000. The National Institute for Global Environmental Change (NIGEC). <http://nigec.ucdavis.edu/publications/index.htm>.
- Antle, J.M., S.M. Capalbo, and J.A. Hewitt. (1999). "Testing Hypotheses in Integrated Impact Assessments: Climate Variability and Economic Adaptation in Great Plains Agriculture." Great Plains Region Annual Progress Report, July 1, 1998 to June 30, 1999. The National Institute for Global Environmental Change (NIGEC). <http://nigec.ucdavis.edu/publications/index.htm>.
- Antle, J.M., S.M. Capalbo, and J.A. Hewitt. (1998). "Heterogeneity and Scale in Modeling the Economic Impacts of Climate Change in Great Plains Agriculture." Great Plains Region Annual Progress Report, July 1, 1997 to June 30, 1998. The National Institute for Global Environmental Change (NIGEC). <http://nigec.ucdavis.edu/publications/index.htm>.
- Other publications available at www.casmsg.montana.edu and www.climate.montana.edu.

Abstracts:

- Capalbo, S.M. and C.E. Overton. (1990). "Comparability of International Data on Agricultural Outputs and Inputs." *American Journal of Agricultural Economics* 72(5):1330.
- Capalbo, S.M., M.J. Denny, and J. Friesen. (1990). "Dynamic Factor Demand Equations in U.S. and Canadian Agriculture." *American Journal of Agricultural Economics* 72(5):1334.
- Capalbo, S.M. (1986). "Measuring the Components of Agricultural Productivity." *American Journal of Agricultural Economics* 68(5):1370.
- Capalbo, S.M., J.M. Antle, M. Denny, R. Lopez, R. Kopp, and W. Huffman. (1984). "Developments in Measuring and Modeling Agricultural Productivity." *American Journal of Agricultural Economics* 66(5):890.

Op Ed Publications:

- Capalbo, S.M. (1996). "Making Sense of Sustainability." *Montana Farmer*, February.

Unpublished Papers and Working Papers:

- Shropshire, D. and S. Capalbo. (2005). "Policy Implications from Regional Energy Growth." In the proceedings of the Fourth Annual Conference on Carbon Capture and Sequestration, *Developing Potential Paths Forward Based on the Knowledge, Science and Experience to Date*, Alexandria, VA, May 2-5.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K.H. Paustian. (2003). "Uncertainty in Econometric-Process Models: The Case of Soil Carbon Sequestration." Working Paper 2003-101, Department of Agricultural and Applied Economics, University of Wyoming.
- Kruzich, T.J. and S.M. Capalbo. (2002). "Issues in Rural Health Care: Trends and Legislation Concerning Telemedicine and the Critical Access Hospital Program." Staff Paper 2002-2, Department of Agricultural Economics and Economics, Montana State University, November.
- Antle, J.M., S.M. Capalbo, and J. Hewitt. (2000). "Testing Hypotheses in Integrated Impact Assessments: Climate Variability and Economic Adaptation in Great Plains Agriculture." FY 1999/2000 Annual Report, National Institute for Global Environmental Change, <http://nigec.ucdavis.edu>.
- Antle, J.M., S.M. Capalbo, C.N. Heggem, R.T. Clark, N.A. Norton, and R.A. Selley. (2000). "Farm-Level Characteristics of Southern Nebraska Farms/Ranches with Annually-Planted Crops." Research Discussion Paper No. 44, Trade Research Center, Montana State University.
- Capalbo, S.M. and C.N. Heggem. (1998). "Evaluating Telemedicine in Rural Settings: Issues and Applications." Research Discussion Paper No. 23, Trade Research Center, Montana State University.
- Antle, J.M., S.M. Capalbo, J.B. Johnson, and W.E. Zidak. (1998). "A Spatially Explicit Econometrics-Based Stochastic Simulation Model of Montana Dryland Grain Production." Research Discussion Paper No 21, Trade Research Center, Montana State University, October.
- Johnson, J.B., W.E. Zidak, S.M. Capalbo, and J.M. Antle. (1998). "Production Costs for Annually-Planted Crops Produced on Dryland Cropland, Northern Montana MLRA 52." Departmental Special Report No. 28, Department of Agricultural Economics and Economics, Montana State University, July.
- Johnson, J.B., W.E. Zidak, S.M. Capalbo, and J.M. Antle. (1998). "Production Costs for Annually-Planted Crops Produced on Dryland Cropland, Northeastern Montana MLRA 53A." Departmental Special Report No. 25, Department of Agricultural Economics and Economics, Montana State University, July.
- Johnson, J.B., W.E. Zidak, S.M. Capalbo, and J.M. Antle. (1998). "Production Costs for Annually-Planted Crops Produced on Dryland Cropland, East Central Montana MLRA 54." Departmental Special Report No. 26, Department of Agricultural Economics and Economics, Montana State University, July.
- Johnson, J.B., W.E. Zidak, S.M. Capalbo, and J.M. Antle. (1998). "Production Costs for Annually-Planted Crops Produced on Dryland Cropland, Southeastern Montana MLRA 58A." Departmental Special Report No. 27, Department of Agricultural Economics and Economics, Montana State University, July.
- Capalbo, S.M., R. Flaherty, and J. Shreffler. (1997). "Evaluating the Medical Assistance Facility (MAF) Model for Delivery of Rural Health Care." Report to the Office of Rural Health Policy, DHHS.
- Johnson, J.B., W.E. Zidak, S.M. Capalbo, and J.M. Antle. (1997). "Farm Level Characteristics of Larger Central and Eastern Montana Farms with Annually-Planted Dryland Crops." Departmental Special Report No. 22, Department of Agricultural Economics and Economics, Montana State University, October.

- Johnson, J.B, W.E. Zidack, S.M. Capalbo, and J.M. Antle. (1997). "Fertilizer Use and Costs on Larger Central and Eastern Montana Farms with Annually-Planted Dryland Crops." Departmental Special Report No. 23, Department of Agricultural Economics and Economics, Montana State University, October.
- Johnson, J.B, W.E. Zidack, S.M. Capalbo, J.M. Antle, and D. Webb. (1997). "Farm Level Characteristics of Larger Central and Eastern Montana Farms with Annually-Planted Dryland Crops." Departmental Special Report No. 21, Department of Agricultural Economics and Economics, Montana State University, August.
- Antle, J.M. and S.M. Capalbo. (1997). "Integrated Assessment of IPM Impacts: An Overview." *Proceedings of the Third National IPM Symposium/Workshop*. Economic Research Service Special Report, Washington DC, May.
- Antle, J.M., S.M. Capalbo, J.B. Johnson, and W.E. Zidak. (1996). "Economics and Sustainability of Crop and Livestock Agriculture on the Northern Plains and Foothill-Mountain Environments." Final Report to ERS/USDA, May.
- Antle, J.M., S.M. Capalbo, J.B. Johnson, and W.E. Zidack. (1995). "Montana Sustainable Agriculture Economic Impact Study: Physical and Economic Crop Production Data," February.
- Antle, J.M., S.M. Capalbo, J.B. Johnson, and W.E. Zidack. (1995). "Economics and Sustainability of Crop and Livestock Agriculture in the Northern Plains and Foothill Mountain Environments," December.
- Antle, J.M., S.M. Capalbo, J.L. Hutson, and R.J. Wagenet. (1995). "Economic and Physical Model Integration for Analysis of the Impacts of Agricultural Chemical Use on Ground Water Quality," December.
- Antle, J.M. and S.M. Capalbo. (1995). "IPM Impact Assessment Group Meeting Background Document," June.
- Antle, J.M., S.M. Capalbo, and C.C. Crissman. (1992). "Integrated Economic, Environmental, and Health Analysis of Policy Options for the Carchi Project." Paper prepared for the Rockefeller Foundation, March.
- Antle, J.M. and S.M. Capalbo. (1988). "Pollution Externalities and the Economic Evaluation of Agricultural Technologies." Paper prepared for Rockefeller Foundation, April.
- Antle, J.M. and S.M. Capalbo. (1988). "Hickson Neutrality and Bias in Multiple Output Technologies." Working paper, Department of Agricultural Economics and Economics, Montana State University, March.
- Capalbo, S.M. (1988). "A Summary and Evaluation of Selected Regional Databases for U.S. Agriculture." Report prepared for cooperative agreement with USDA and Resources for the Future, Washington, DC, January.
- Capalbo, S.M. (1987). "Canadian Agriculture: Cost Share and Econometric Estimates of the Aggregate Technology, 1961-1980." Report prepared for the Directorate for Food, Agriculture, and Fisheries, OECD, Paris, December.
- Capalbo, S.M. (1987). "Toward Estimating the Opportunity Cost of Instream Flows in the Pacific Northwest." Project report for the Quality of the Environment Division, Resources for the Future, Washington, DC, October.
- Capalbo, S.M., T. Vo, and J. Wade. (1985). "An Econometric Database for the U.S. Agricultural Sector." Resources for the Future, Washington, DC, Discussion Paper No. RR85-01, revised July 1986.

Invited Presentations:

- Capalbo, S.M. (2003). "Johannesburg Summit 2002 (WSSD): Implications for Research and Analysis in Environmental and Resource Economics." Presented at the 25th International Conference of the International Association of Agricultural Economists (IAAE), Durban, South Africa, August 16-22.
- Capalbo, S.M., Antle, J.M., and S. Mooney. (2001). "Quantifying Carbon Sequestration Costs in the Northern Great Plains: An Integrated Assessment Approach." Presented at the USDA/EPA forum on *Forestry, Agriculture, and Greenhouse Gas Modeling*, National Conservation Training Center, Shepherdstown, WV, October 1-3.
- Capalbo, S.M. and J.M. Antle. (2001). "Prospects for Agricultural Carbon Sequestration: An Economic Assessment." Paper presented at the Western Economics Association annual meetings, San Francisco, July.
- Antle, J.M. and S.M. Capalbo. (2001). "Agriculture as a Managed Ecosystem: Implications for Econometric Analysis of Production Risk." Paper presented at the SER-IEG-31 meetings on *A Comprehensive Assessment of the Role of Risk in Agriculture*, Gulf Shores, AL, March 22.
- Antle, J.M., S.M. Capalbo, and S. Mooney. (1999). "Optimal Spatial Scale and Economic and Environmental Tradeoffs." Selected Paper presented at AAEE Annual Meetings, Nashville, TN, August.
- Antle, J.M. and S.M. Capalbo. (1999). "Economic Models for Integrated Assessment of Agricultural Production Systems." Paper presented at the Global Change in Terrestrial Ecosystems Conference, Reading, UK, September.

- Antle, J.M., S.M. Capalbo, and S. Mooney. (1999). "Designing Efficient Policies for Agricultural Soil Carbon Sequestration: Economics of Soil C Sequestration in the Northern Plains." Invited presentation at *Exploring Opportunities for Carbon Sequestration: A National Conference*. Missoula, MT, October.
- Antle, J.M., S.M. Capalbo, and S. Mooney. (1999). "Designing Research to Analyze Climate Change Impacts Dryland Grain Production in the Northern Plains." Invited presentation at Climate Change Meeting the Challenge/Seizing the Opportunities UMAC Conference, University of North Dakota, Grand Forks, November 14-16.
- Capalbo, S.M. (1999). "Valuing Rural Health Care: Issues of Access and Quality." Invited presentation at the AAEA session on *Discrete Choice Demand Models for Rural Health Policy Evaluation*, New York, January.
- Capalbo, S.M. and C.N. Heggem (1998). "Evaluating Telemedicine in Rural Settings: Issues and Applications." Invited presentation at the UDSA workshop on Rural Telecommunications, Washington, DC, September.
- Capalbo, S.M., R. Flaherty, and J. Shreffler. (1998). "The Critical Access Hospitals: Determining What's Right for Your Community." Invited presentation to the annual Northwest Regional Rural Health Conference, Spokane, WA, March.
- Capalbo, S.M. (1998). "The Experience of Montana's Medical Assistance Facilities." Invited presentation at the University of Washington's Rural Health Care Conference, Seattle, May.
- Capalbo, S.M. and J.A. Hewitt. (1998). "Valuing Natural Assets: An Application to Yellowstone National Park." Presentation for the 125th Anniversary of YNP, Bozeman, MT, May.
- Antle, J.M. and S.M. Capalbo. (1996). "Integrated Assessment of IPM Impacts: An Overview." Invited presentation at the Third National IPM Symposium/Workshop, Washington, DC, February 28.
- Antle, J.M. and S.M. Capalbo. (1996). "Quantifying Agriculture-Environment Tradeoffs to Assess Environmental Impacts of Domestic and Trade Policies." Presented at the conference *European Agriculture at the Crossroads: Competition and Sustainability*, University of Crete, Rethimno, Crete, May.
- Antle, J.M. and S.M. Capalbo. (1994). "Pesticides, Productivity and Farmer Health: Implications for Regulatory Policy and Agricultural Research." Invited paper, ASSA/AAEA meetings, Boston, January.
- Antle, J.M., S.M. Capalbo, and C.C. Crissman. (1993). "Endogenous Timing of Decisions in Econometric Production Models." Invited paper, WAEA meetings, August.
- Antle, J.M. and S.M. Capalbo. (1991). "Integrating Economic and Physical Models for Analyzing Environmental Effects of Non-Point Source Pollution." Invited presentation at the AERE Workshop on *Controlling Non-Point Source Pollution*, June 6 and 7.
- Capalbo, S.M. (1990). "International Productivity Comparisons: Development and Usefulness." Invited paper for the 1990 AAEA Meetings, Vancouver, BC.
- Capalbo, S.M. and T. Phipps. (1990). "Designing in Environmental Quality: Possibilities in U.S. Agriculture." Invited paper for AEI Conference on "Is Environmental Quality Good for Business?" Washington, DC, June.
- Capalbo, S.M. (1990). "Use of Ground Water Models in Economic Policy Analysis." Invited presentation to Resource and Policy Consortium, Washington, DC, May.
- Capalbo, S.M. and J.M. Antle. (1998). "Towards Incorporating Social Costs in Returns to Agricultural Research." Invited paper presented at 1988 Winter ASSA/AEA Meetings, December.
- Capalbo, S.M. and K. Farrell. (1985). "Natural Resources and Environmental Dimensions of Agricultural Development: Coping with the Tradeoffs." Invited paper presented at the Nineteenth International Conference of Agricultural Economics, Malaga, Spain, August.
- Capalbo, S.M. (1985). "Comparing Structural Production Models for U.S. Agriculture." Invited paper presented at Conference on Current Issues in Productivity, Graduate School of Management, Rutgers, State University of New Jersey, December.

Conference/Workshop Presentations:

- Capalbo, S.M. (2005). Phase I and Phase II Planning presentations at the Big Sky Carbon Sequestration Partner Planning meeting, Bozeman, MT, December 1-2.
- Capalbo, S.M. (2005). "Storing Carbon Waste Underground." Presented to the Idaho Energy Symposium, "Energy, Business, and the Public Sector: Opportunities and Challenges," Idaho State University, Pocatello, ID, November 5.
- Capalbo, S.M. (2005). "The Big Sky Carbon Sequestration Partnership." Presented to Montana's Energy Future Symposium, Bozeman, MT, October 19.

- Capalbo, S.M. and L. Jones. (2005). "Montana's Energy Development: Overview of Potential Impacts." Presented to Montana's Energy Future Symposium, Bozeman, MT, October 18.
- Capalbo, S.M. (2005). "DOE Regional Carbon Sequestration Partnerships Phase I Program Overview and Phase II Kickoff." Pittsburgh, PA, October 12-14.
- Capalbo, S.M. (2005). "Big Sky Carbon Sequestration Partnership Regional Overview and Opportunities for Future Collaborators under Phase II." Presentation at MIT, Boston, MA, October 9-10.
- Capalbo, S.M. (2005). "Big Sky Carbon Sequestration Partnership Regional Program Overview." Presented to the Powering the Plains Workshop, Minneapolis, MN, October 6.
- Capalbo, S. (2005). "Bioethanol and Energy Opportunities." Presented at the American Society of Agricultural Engineers Annual International Meeting, Tampa, FL, July 17-20.
- Capalbo, S.M. (2005). "Big Sky Carbon Sequestration Regional Partnership and Implications for IGCC Power Technologies." Presented to the Coal Power Project Development conference, Denver, CO, June 1-3.
- Capalbo, S.M. and T. Krueger (2005). "Big Sky Carbon Sequestration Regional Partnership with Energy Northwest." Presented to the NWPPA Annual Meeting, Palm Springs, CA, May 25-26.
- Capalbo, S.M. (2005). "Big Sky Carbon Sequestration Regional Partnership." Presentations to Energy Northwest and Portland General, Portland, OR, May 17-19.
- Capalbo, S.M. (2005). "Big Sky Regional Carbon Sequestration Partnership." Fourth Annual Conference on Carbon Capture and Sequestration, *Developing Potential Paths Forward Based on the Knowledge, Science and Experience to Date*, Alexandria, VA, May 2-5.
- Shropshire, D. and S. Capalbo. (2005). "Policy Implications from Regional Energy Growth." Presented at the Fourth Annual Conference on Carbon Capture and Sequestration, *Developing Potential Paths Forward Based on the Knowledge, Science and Experience to Date*, Alexandria, VA, May 2-5.
- Capalbo, S.M. (2005). "Big Sky Carbon Sequestration Regional Partnership." Presented to the University of Massachusetts review team, Hartford, CT, April 27-29.
- Antle, J., S. Capalbo and K. Paustian. (2005) "Estimating the Economic Potential for Agricultural Soil Carbon Sequestration in the Central U.S. Using an Aggregate Econometric-Process Simulation Model." Presented at the Third USDA Symposium on Greenhouse Gases and Carbon Sequestration in Agriculture and Forestry, Baltimore, MD, March 21-24.
- Capalbo, S.M. (2004). "Economics of Carbon Sequestration." Presented at the Consortium of Agricultural Soils Mitigation of Greenhouse Gases Conference, *Carbon Sequestration: Opportunities in the Eastern Corn Belt*, Indianapolis, IN, December 15-16.
- Capalbo, S.M. (2004). "Big Sky Carbon Sequestration Regional Partnership: Update." Presented at the Regional Carbon Sequestration Partnerships Annual Program Review Meeting, Pittsburgh, PA, November 16-17.
- Capalbo, S.M. (2004). "Big Sky Carbon Sequestration Regional Partnership: Terrestrial Sequestration." Presented at the Regional Carbon Sequestration Partnerships Annual Program Review Meeting, Pittsburgh, PA, November 16-17.
- Capalbo, S., T. McLing, and R. Smith. (2004). "Carbon Sequestration: The Big Sky Regional Partnership." Presented at the Western Fuels Symposium, Billings, MT, October 13-14.
- Capalbo, S., S. Mooney, and K. Paustian. (2004). "Sensitivity of Carbon Sequestration Costs to Economic and Biological Uncertainties." Presented at the INRA and INEEL Symposium, *Environmental and Subsurface Science Applied to Energy, Nuclear, and National Security Research*, Spokane, WA, September 21.
- Capalbo, S.M. (2004). "Overview of Big Sky Partnership and Terrestrial Sequestration." ASME Carbon Sequestration Symposium, Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, ID, August 26.
- Capalbo, S.M. (2004). "Overview of Big Sky Partnership and Terrestrial Sequestration." Presentation at the Pioneer Hi-Bred International, Inc. meeting, Des Moines, IA, August 18-19.
- Capalbo, S.M. (2004). "Big Sky Regional Carbon Sequestration Partnership: Overview." Presented at the Western Governors' Association 2004 Annual Meeting, Santa Fe, NM, June 20.
- Capalbo, S.M. (2004). "Big Sky Regional Carbon Sequestration Partnership: Sources and Sinks." Presented at the Western Governors' Association 2004 Annual Meeting, Santa Fe, NM, June 20.
- Antle, J.M., S. Capalbo, and K. Paustian. (2004). "Estimating Economic Potential for Ag Soil Carbon Sequestration Using the Opportunity Cost Approach: Results for the Central United States." Presented at the Third Annual Conference on Carbon Capture and Sequestration, Alexandria, VA, May 4.

- Mooney, S., J.M. Antle, S.M. Capalbo, and K. Paustian. (2004). "What are the Economic Costs of Measuring and Monitoring Soil Carbon?" Presented at the Third Annual Conference on Carbon Capture and Sequestration, Alexandria, VA, May 3-6.
- Capalbo, S.M. and J.M. Antle. (2004). "MSU Project Plan and Approach." Presented at the Big Sky Carbon Sequestration Regional Partnership Meeting, Los Alamos National Laboratory, Los Alamos, NM, March 1-3.
- Antle, J.M. and S.M. Capalbo. (2004). "Integrating Economic and Biophysical Models for Assessing Carbon Sequestration Potentials through Land Use Changes." Presented at the Big Sky Carbon Sequestration Regional Partnership Meeting, Los Alamos National Laboratory, Los Alamos, NM, March 1-3.
- Antle, J.M. and S.M. Capalbo. (2004). "Economic Potential for Soil C Sequestration in the Central U.S.: The Opportunity Cost Approach." Presented at the *Agriculture and Energy Industry Partnerships for Soil Carbon Sequestration to Offset Greenhouse Gases* conference at Texas A&M University, College Station, TX, January 21.
- Capalbo, S.M. and D.E. Shropshire. (2004). "Montana Regional Carbon Sequestration Partnership." Presented at the 7th Electric Utilities Environmental Conference, *Air Quality, Global Climate Change and Renewable Energy*, Tucson, AZ, January 19-22.
- Capalbo, S.M. (2003). "The Northern Rockies and Great Plains Regional Carbon Sequestration Partnership." Presented at the Department of Energy Regional Carbon Sequestration Partnership Kickoff Meeting, Pittsburgh, PA, November 3-4.
- Antle, J.M. and S.M. Capalbo. (2003). "Synergies, Surprises and Schwarzenegger: Designing Policy-Relevant Science." Presented at the Center for Natural Resources Policy Analysis, University of California, Davis, October 23.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K.H. Paustian. (2003). "Uncertainty in Econometric-Process Models: The Case of Soil Carbon Sequestration." Paper presented at the American Agricultural Economics Association Annual Meetings, Montreal, Quebec, July 27-30.
- Capalbo, S.M. (2003). "Consortium for Agricultural Soils Mitigation of Greenhouse Gases (CASMGs)." Informal presentation and poster for the Governor of Montana and State Legislators, Helena, MT, February 6.
- Capalbo, S., J.A. Antle, S. Mooney, and K. Paustian. (2003). "Sensitivity of Carbon Sequestration Costs to Scale and to Economic and Biological Uncertainties." Presented at the Allied Social Science Association (ASSA) Annual Meetings, Washington, DC, January 5.
- Antle, J.M., R. Brickleyer, S.M. Capalbo, R. Engel, and P. Miller. (2002). "Montana State University Research on Soil Carbon Sequestration." Presented at the Power Generation/Industry Workshop, Governor's Carbon Sequestration Working Group, Helena, MT, December 12.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K.H. Paustian. (2002). "Costs of Measuring Soil Carbon." Presented at the USDA Carbon Symposium on Natural Resource Management to Offset Greenhouse Gas Emissions, Raleigh, NC, November 20.
- Capalbo, S.M., J.M. Antle, S. Mooney, and K.H. Paustian. (2002). "Spatial Heterogeneity and Scale: Implications for Carbon Sequestration Policies for Agriculture." Presented at the USDA Carbon Symposium on Natural Resource Management to Offset Greenhouse Gas Emissions, Raleigh, NC, November 19.
- Antle, J.M., S. Mooney, S.M. Capalbo, K.H. Paustian. (2002). "Design and Cost of a Measuring and Monitoring Scheme for Soil Carbon Credits." Presented at the Soil Science Society of America annual meetings, Indianapolis, IN, November 11.
- Paustian, K., J. Antle, S. Capalbo, and S. Mooney. (2002). "Science, Policy and Economics of Agricultural Sequestration." Presented at the Environmental Defense Annual Science Day, Menlo Park, CA, September 19.
- Antle, J.M., S.M. Capalbo, S. Mooney, E.T. Elliott, and K.H. Paustian. (2002). "Montana State University Program on Climate Change and Greenhouse Gas Mitigation." Presented to the Governor's Carbon Sequestration Working Group, NCRS Office, Missoula, MT, October 21.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K.H. Paustian. (2002). "Soil Carbon Measurement Costs and Protocols Using a Linked Economic and Biophysical Model." Presented at the Forestry and Agriculture Greenhouse Gas Modeling Forum, Shepherdstown, WV, October 9.
- Mooney, S., J.M. Antle, S.M. Capalbo, and K.H. Paustian. (2002). "A Measurement Protocol for Soil C: Influence on Efficient Contract Design." Selected paper presented at the AAEA Annual Meetings, Long Beach, CA, July 30.

- Antle, J.M., S.M. Capalbo, S. Mooney, E.T. Elliott, and K.H. Paustian. (2002). "Opportunity Costs of Supplying Soil C: Sensitivity to Estimated Soil C Rates." Poster presented at the AAEA Annual Meetings, Long Beach, CA, July 28-31.
- Antle, J.A., S. Capalbo, S. Mooney, E. Elliott, and K. Paustian. (2002). "Spatial Heterogeneity, Contract Design, and the Efficiency of Carbon Sequestration Policies for Agriculture." Paper presented at the 2nd World Congress of Environmental and Resource Economists, Monterey, CA, June 25.
- Antle, J.M., S.M. Capalbo, S. Mooney, H.W. Hunt, and K.H. Paustian. (2002). "Close-Coupling of Ecosystem and Economic Models: Adaptation of Central U.S. Agriculture to Climate Change." Presented at EPA STAR annual review, Washington, DC, January 15.
- Antle, J.M. and S.M. Capalbo. (2001). "Agriculture as a Managed Ecosystem: Policy Implications." Invited paper presented at the meetings of the Western Agricultural Economics Association, Logan, Utah, July 10.
- Antle, J., S. Capalbo, S. Mooney, E. Elliott, and K. Paustian. (2001). "Spatial Heterogeneity and the Design of Efficient Policies for Soil Carbon Sequestration." Invited presentation at a seminar at North Dakota State University, July 26.
- Antle, J., S. Capalbo, S. Mooney, E. Elliott, and K. Paustian. (2001). "Could Agriculture Compete in a Market for Carbon?" Paper presented at a meeting on Carbon Sequestration held by the Montana Carbon Offset Coalition, Bozeman, February 7.
- Antle, J., S. Capalbo, S. Mooney, E. Elliott, and K. Paustian. (2001). "Could Agriculture Compete in a Market for Carbon? Results from a Study of Montana Dryland Grain Production." Paper presented at the 4th Annual National Wheat Industry Research Forum sponsored by the National Association of Wheat Growers, New Orleans, February 2.
- Antle, J.M., S.M. Capalbo, and S. Mooney. (2000). "Econometric Analysis of Soil Carbon Sequestration." Selected paper presented at AAEA Annual Meetings, Tampa, FL, August.
- Capalbo, S.M. (2000). "Policy Design Issues for Carbon Sequestration in Forestry and Agriculture." Organized this symposium at the AAEA Annual Meetings, Tampa, FL, August.
- Capalbo, S.M. (2000). "Policy Design for Carbon Sequestration in Dryland Agriculture in the Great Plains." Presented at the *Policy Design Issues for Carbon Sequestration in Forestry and Agriculture* symposium at the AAEA Annual Meetings, Tampa, FL, August.
- Antle, J.M., S.M. Capalbo, and S. Mooney. (2000). "Policy Design and Carbon Sequestration Costs." Paper presented at the *Advances in Terrestrial Ecosystem Carbon Inventory, Monitoring and Sequestration* USFS Conference, Raleigh, NC, October 3-5.
- Antle, J.M., S.M. Capalbo, and J.A. Hewitt. (2000). "Testing Hypotheses in Integrated Impact Assessments: Climate Variability and Economic Adaptation in Great Plains Agriculture." Annual report presented at the annual meeting of the National Institute for Global Environment Change (NIGEC), Lincoln, NE, April 2-3.
- Antle, J.M., S.M. Capalbo, and S. Mooney. (2000). "Economics of Agricultural Soil C Sequestration in the Northern Plains." Presented at a departmental seminar at the University of Arkansas, June 15.
- Antle, J.M. and S.M. Capalbo. (2000). "Economics of Soil Carbon Sequestration." Presented at a departmental seminar at Washington State University, March 8.
- Antle, J.M. and S.M. Capalbo. (2000). "Climate Change and Carbon Sequestration: An Integrated Assessment Analysis." Presented at a departmental seminar at the University of Rhode Island, October 13.
- Antle, J.M. and S.M. Capalbo. (2000). "Econometric-Process Models and Integrated Assessment Analysis." Presented at a departmental seminar at Oregon State University, October 20.
- Capalbo, S.M. (1997). "Evaluating Economic and Environmental Tradeoffs in Agricultural Production Systems." Presentation at the *Forward Planning Concepts: Application and Interpretation*, Western Regional Meetings for County Extension Agents, Big Sky, MT, October 6-9.
- Capalbo, S.M., W. Koo, J. Antle, and J. Johnson. (1997). "Implications of Changes in International Market Conditions and Domestic Policies for Wheat Producers and Agricultural Sustainability in the Northern Plains." Presented at the workshop on *The Economics of World Wheat Markets: Implications for North America*, sponsored by the Trade Research Center at Montana State University-Bozeman, May 29-June 1.
- Capalbo, S.M. (1996). "Modeling the Economic Impacts of Climate Change in the Great Plains Region." Presentation to the National Institute for Global Climate Change Annual Workshop, Nebraska City, NE, October 9-10.
- Johnson, J., J. Antle, and S.M. Capalbo. (1995). "Results of Sustainable Agriculture Pilot Project in Montana." Symposium presentation at the AAEA meetings, Indianapolis, IN, August.

- Antle, J. and S. Capalbo. (1995). "Incorporating Economic Environmental and Health Evaluations into IPM Research." Presentation at USDA/IPM Workshop, Big Sky, MT, July.
- Antle, J. and S. Capalbo. (1995). "Role of Economics in Ecosystem Management: Agricultural Landscapes." Presentation at the MRC Conference, *Ecosystem Management in the Northern Rockies: Integrating Forest, Agriculture, and Wilderness Landscapes*, Montana State University, June 22-24.
- Capalbo, S.M., J.M. Antle, and J. Johnson. (1994). "Sustainable Agriculture in Northern Plains and Foothill Mountain Environments." Symposium presentation at the AAEA meetings, San Diego, CA, August.
- Antle, J.M., S.M. Capalbo, and C.C. Crissman. (1992). "Integrated Economic, Environmental, and Health Analysis of Policy Options for the Carchi Project." Paper presented for the conference, *Measuring the Health and Environmental Effects of Pesticides*, Bellagio, Italy, April.
- Capalbo, S.M., J. Friesen, and M. Denny. (1990). "Dynamic Factor Demands in U.S. and Canadian Agriculture." Selected paper for 1990 AAEA meetings, Vancouver, BC, August.
- Capalbo, S.M. (1990). "The Measurement and Valuation of Agricultural Chemical Use: An Economist's Perspective." Paper presented at American Association for Advancement of Science (AAAS) meeting, New Orleans, LA, February.
- Capalbo, S.M. (1987). "The Effects of Technical Change on the Use and Value of Natural Resources." Paper presented at Resources for the Future/USDA Workshop, *Linkages Between Natural Resources and International Trade*, Washington, DC, March.
- Capalbo, S.M. (1986). "Measuring the Components of Agricultural Productivity." Selected paper presented at Annual Meetings of the American Agricultural Economics Association, Reno, NV.
- Capalbo, S.M. and M. Denny. (1985). "Testing Productivity Models." Paper presented at Annual Meetings of ASSA/AEA, Dallas, TX, December 1984; revised version presented at Annual Meetings of CEA, Montreal, Quebec, Canada.
- Capalbo, S.M. (1984). "Transboundary Renewable Resources and Imperfect Competition: The Implications for Fishery Management Policy." Paper presented at the Sixth Annual Conference of the Society for Economic Dynamics and Control, Nice, France, June.
- Capalbo, S.M. and R. Howitt. (1984). "Bioeconomic Supply and Imperfect Competition: A Policy Model for an Internationally Utilized Resource." Paper presented at Second Conference of the International Institute of Fisheries Economics and Trade, Christ Church, New Zealand, August.