

# Michael D. Duffy

478 Heady Hall  
Iowa State University  
Ames, Iowa 50011  
mduffy@iastate.edu  
(515) 294-6160

## Current Position and Responsibilities:

Full Professor, Iowa State University, Department of Economics, 1992.

- Extension Economist/Professor of Economics (50 percent appointment):  
Major duties include:

Director of Iowa State University's Beginning Farmer Center (BFC). This Center has an \$94,000 budget and 1.5 FTE's. In addition, the BFC provides part-time help to offset the time devoted to the Center by the attorney for the Iowa Concerns hotline. The Center's objectives include coordinating educational programs and services for beginning farmers, assessing needs of beginning and retiring farmers to identify opportunities for programs and services, and developing statewide programs to educate beginning and retiring farm families. The BFC administers a matching program for beginning and retiring farmers. Working with the ISU Department of Ag. Education, the BFC co-sponsors a seminar series for students who will be returning to the farm. The Center sponsors research and conferences related to beginning and retiring farmers and their needs. The BFC also makes policy recommendations regarding alternative policy options to encourage beginning farmers.

Chair of Iowa State University Graduate Program in Sustainable Agriculture. This program offers both PhD. and M.S. degrees. In addition, there is a minor program with the ISU, MBA program. Currently there are 28 students enrolled in the program and 58 faculty members.

Administrator for ISU Extension Farm Financial Management Program. This program supports 13 part-time employees throughout the state who perform financial analysis for farm families. Responsible for updating and training employees. Charged with securing funding for this program.

Iowa State University land contact. Conduct the yearly Iowa State University land value survey. Leader of the Farm Study Group which prepares the annual Soil Management and Land Valuation conference. This includes coordinating with the Iowa Real Estate Commission for continuing education credit in both real estate and appraisal for the conference. Conduct the five-year Iowa Land Ownership survey as directed by the Iowa Legislature. Answer media and individual questions from around the nation on Iowa land values.

Provide leadership for Extension farm management programming throughout the state. This includes providing in-service training for Extension field staff. Preparation of the annual Estimated Costs of Crop Production and the Iowa Farm Costs and Returns documents. Analyze the government programs and provide decision-

making material; this included analysis of the Conservation Security Program for the national Extension committee

Serve on graduate committees. Currently major professor for one Ph.D. and one M.S. student. Serving on seven M.S. and two Ph.D. committees. Have served on 62 M.S. or Ph.D. committees.

Teaching farm management on a part-time, as needed basis.

Current research includes analysis of all aspects of the use of switchgrass as an alternative energy source. This work is funded by a continuing grant from the U.S. Department of Energy. Analysis of the impact of alternative farm definitions, especially as they relate to the disappearance of farms in the middle size categories. This work is being conducted with the University of Tennessee Agricultural Policy Analysis Center. Estimation of the external costs of agricultural production. Impact of government programs on beginning farmers and land values. Estimation of the impacts of alternative food systems on farm profitability.

Maintain media contact in both print and radio outlets. Contribute to news stories and respond to other requests for information and interviews. Perform extensive outreach activities, including a monthly column for Wallace's Farmer magazine.

### **Past Experience:**

1981 - 1984      Agricultural Economist with the U.S. Department of Agriculture Economic Research Service. Research involved economic evaluation of various pest management projects and working with multidisciplinary research teams. Worked with individuals and groups that were awarded contracts from my branch.

### **Education:**

1977 - 1981      The Pennsylvania State University, University Park, Pennsylvania. Graduated November 1981 with a Ph. D. in Agricultural Economics. Grade point average was 3.44 on a 4.0 scale. Dissertation entitled, Mushroom Integrated Pest Management and the Costs of Current Management Techniques. Dissertation funded by grant from USDA. Completed three hours supervised college teaching in Land Policy and Farm Management.

1975 - 1977      University of Nebraska, Lincoln, Nebraska. Graduated May 1977 with a M.S. Degree in Agricultural Economics. Main course emphasis was in resource economics. Grade point average was 3.85 on a 4.0 scale. Master's thesis entitled, An Economic Evaluation of Pest Management Services in Nebraska.

1970 - 1975      University of Nebraska, Lincoln, Nebraska. Graduated May 1975 with a B.S. in Natural Resources, Parks and Recreation Management.

### **Previous Positions at Iowa State University:**

- Associate Director, Leopold Center for Sustainable Agriculture, 1992–2005
- Area Extension Farm Management Field Specialist, 1984–1985
- Assistant Professor, Department of Economics, 1985–1989
- Associate Professor, 1989–1992
- Assistant Extension Ag Program Leader, 1991

### **International Experience:**

- 2006 Presentation, Queensland Farmer Federation, Coolum, Australia
- 2005 Presentation, EUROLAN final meeting, Vienna, Austria
- 2005 Guest Lecturer, La Molina University, Lima, Peru
- 2004 Mentor for Romania Scientist with Norman E. Borlaug International Science and Technology Fellows Program
- 2003 Visiting Fellow, Enhancing Science Networks, Department of Natural Resources and Environment, Victoria, Australia
- 2000 Mentor for visiting Samoan scientist
- 1998 Faculty advisor, ISU study abroad, China
- 1997 Member of Swedish swine industry study tour
- 1996 Delegate on People-to-People tour of Kenya
- 1996 Member of evaluation team for Winrock International sustainable agriculture projects in China
- 1996 Mentor for visiting Armenian scientist
- 1995 Attendee and presenter at the International Agriculture and an Environment Conference, Kiev, Ukraine
- 1995 Delegate People-to-People tour of China
- 1993-94 Member Extension formation committee, Czech Republic
- 1993 Leader of needs assessment team, Czech and Slovak Republics
- 1991-92 Member of restructuring team, Czechoslovakia

### **Awards:**

- 2007 Certificate of Excellence, Publications, Am. Society of Agronomy
- 2007 Achievement by an Educational Team, John Deere, ISU Extension
- 2004 ISU College of Agriculture Outstanding Achievement in Extension
- 2002 Achievement by an Educational Team, Farm Bill Education Team, ISU Extension
- 1999 Achievement Award, Manure Nutrient Management, ISU Extension
- 1998 Outstanding Achievement in Public Issue Education, Farm Foundation
- 1997 Achievement Award, ISU Extension
- 1996 Sustainable Agriculture Achievement Award, Practical Farmers of Iowa
- 1993 Epsilon Sigma Phi, Team Award, Iowa State University
- 1991 College Outstanding Applied Research/Extension Award, Iowa State University
- 1991 Environmental Achievement Award, National Environmental Awards Council
- 1990 Epsilon Sigma Phi Certificate of Meritorious Service, Iowa State University
- 1984 Administrator's Special Merit Award of Outstanding Research, USDA

### **Grants and Contracts:**

#### *One-year:*

- Iowa Learning Farms, Dept. of Ag and Land Stewardship, 2007 \$19,000
- Economic Evaluation of Organic Soybean Production, USDA/ERS, 2006 \$50,000
- Evaluation of Kenaf Production in Iowa, Baker funds, 2004 \$22,000
- Economic Analysis of Switchgrass Production in Iowa, U.S. Department of Energy, 2003 \$20,000
- Iowa Cropping Practices, Dept. of Ag. and Land Stewardship, 2002 \$18,000
- Successful Farms in Iowa, USDA/SARE, 2001 \$23,000
- Characteristics of Successful Small Farms, USDA/ERS, 1999 \$18,000
- Conservation Compliance Analysis, Pioneer Hi-Bred, 1988 \$12,000
- Strip Cropping, Leopold Center, 1990, 1991 \$14,000
- Labor Use, Leopold Center, 1987 \$19,000

- Energy Use, Cropping Practices, Leopold Center, 1990	\$74,000
- Manure Use, Leopold Center, 1991	\$12,000
- Energy Use, Iowa Department of Agriculture, 1990	\$34,000
- Manure Use, USDA, 1990	\$12,000
- Systems Analysis, USDA, 1989	\$10,000

*Multi-year:*

- Iowa Learning Farms, Iowa Department of Ag & Land Stewardship, 2005	\$27,000
- Farmer Motivation for Adoption of Switchgrass, Department of Energy, 2001	\$58,000
- Beginning Farmer Analysis, ISU Ag. Foundation, 2001	\$25,000
- Big Spring Basin, Iowa Department of Agriculture, 1988-1992	\$174,000
- Farm Financial Analysis, USDA, 1985-1991	\$400,000
- Conversion Project, Rodale Institute, 1987-1989	\$27,000

**Publications:**

- Duffy, Michael and D. Smith. "Farmland Ownership and Tenure in Iowa, 2007", Iowa State Ext Pub., Ames, IA, PM 1983, Nov. 2008
- Duffy, Michael. Status of Farms and Ranches in the Middle in Renewing an Agriculture-of-the-Middle: Situation and Strategy for the Center of the America's Food System, Penn State University Press, 2008.
- Duffy, Michael. The Clock is Ticking for Rural America in Sustainable Land Management; Strategies to Cope with the Marginalisation of Agriculture, ed F. Brouwer, et al, Edward Elgar Pub. Ltm., The Lypiatts, 15 Lansdown Rd., Cheltenham, UK, 2008
- Duffy, Michael. How Bioenergy Could Change Land Ownership and Values, in Perspectives on 21<sup>st</sup> Century Agriculture: A Tribute to Walter J. Armbruster, ed R. Knutson, S. Knutson, & D. Ernstes, Farm Foundation, Oak Brook, IL, 2007.
- C. Francis, R. Elmore, J. Ikerd, M. Duffy, "Greening of Agriculture: Is it all a Greenwash of the Globalized Economy?", Journal of Crop Improvement, Vol. 19, Nos.1 / 2, Haworth Press, Binghamton, NY, 2007
- D. Karlen, E. Hurley, S Andrews, C. Cambardella, M. Meek, Michael Duffy, A. Mallarenio, "Crop Rotation Effects on Soil Quality at Three Northern Corn/Soybean Locations", Agronomy Journal, Vol. 98, 3, pp. 484-495, May/June, 2006
- Holste, Ann and Michael Duffy. "Estimating Returns to Iowa Farmland," Journal of Farm Managers and Rural Appraisers, Denver, CO, Vol. 68, No. 1, pp. 102-109, July 2005.
- Tegtmeier, Erin M. and Michael D. Duffy. "External Costs of Agricultural Production in the United States," International Journal of Agricultural Sustainability, Vol. 2, No. 1, Channel View Publications, Clevedon, UK, 2004.
- Delate, K., M. Duffy, C. Chase, A. Holste, H. Friedrich and N. Wantate. "An Economic Comparison of Organic and Conventional Grain Crops in a Long-Term Agroecological Research (LTAR) Site in Iowa." Journal of Alternative Agriculture, Vol. 18, No. 2, 2003.

- Hipple, P. and M.D. Duffy, "Farmer's Motivation for Adoption of Switchgrass" in Trends in New Crops and New Uses, ed. J. Janich and A. Whipkey, pp. 252-266, ASHA Press, Alexandria, VA, 2002.
- Duffy, M.D. and V. Nanhou, "Costs of Producing Switchgrass for Biomass in Southern Iowa" in Trends in New Crops and New Uses, ed. J. Janich and A. Whipkey, pp. 267-275, ASHA Press, Alexandria, VA, 2002.
- Duffy, Michael. "Underserved and Small Farms." In 2002 Farm Bill: Options and Consequences, ed. J. L. Outlaw and E. G. Smith, Pub. # 2001-01, Farm Foundation, Oak Brook, IL, September 2001.
- Lillywhite, Jay M. and Michael Duffy. "A New Perspective on an Old Issue: Multifamily Farms and America's Farm Structure." Journal of Alternative Agriculture, Vol. 16, No. 4, 2001.
- Duffy, Michael D. and Mark Honeyman. "Labor Requirements for Market Swine Produced in Hoop Structures." 1999 Swine Research Report, Iowa State University, AS-642, January 2000.
- Kliebenstein, James, John Lawrence and Michael Duffy. "Economics of the Production Industry." Iowa's Pork Industry—Dollars and Scents, Iowa State University, PM 1746, January 1998.
- Duffy, Michael and Carole Simmons, "Agrichemical Use," Encyclopedia of Rural America, The Land and People, ed., G. A. Goreham, ABC-CCIO, Santa Barbara, California, pp. 14-17, 1997.
- Duffy, Michael D. "Developing the Next Generation of Weed Management Systems: Economic and Social Challenges." In Integrated Weed and Soil Management, J.L. Hatfield, D.D. Buhler and B.A. Stewart, eds., Ann Arbor Press, Chelsea, Michigan, pp. 371-380, 1997.
- Mayerfeld, Diane, G.R. Hallberg, G.A. Miller, W.K. Wintersteen, R.G. Hartzler, S.S. Brown, M.D. Duffy and J.R. DeWitt. "Pest Management in Iowa—Planning for the Future." Iowa State University, IFM 17, June 1996.
- Liu, Shipping and M. Duffy. "Tillage Systems and Profitability: An Economic Analysis of the Iowa MAX Program." Journal of Production Agriculture, Vol. 9, No. 4, October-December 1996.
- Duffy, Michael D. "Alternative Approaches to Decision Making" in Economic Thresholds for Integrated Pest Management, ed. Leon Higley and Larry P. Pedigo, University of Nebraska Press, Lincoln, Nebraska, pp. 74-85, 1996.
- Karlen D. L., M.D. Duffy, T.S. Colvin. "Nutrient, Labor, Energy and Economic Evaluations of Two Farming Systems in Iowa," Journal of Production Agriculture, Vol. 8, October-December 1995.
- Gleason, M.L., M.K. Ali, P.A. Domoto, D.R. Lewis and M.D. Duffy. "Comparing Integrated Pest Management and Protectant Strategies for Control of Apple Scab and Codling Moth in an Iowa Apple Orchard." HortScience Vol. 4(2), April-June 1994.
- Duffy, Michael. "Trends in Farm Profitability and Regulations." Proceedings of Sixteenth Soil Seed Technology Conference, Iowa State University, pp. 85-94, 1994.
- Duffy, Michael. "The Economics of Soil Specific Crop Management." Soil Specific Crop Management, ed. P.C. Roberts, R.H. Rust, and W.E. Larson, pp. 245-253, 1993.

- Govindasamy, Ramu and Michael Duffy. "Alternative Methods for Soil Conservation to Comply with the Conservation Compliance Program." Journal of Farm Managers and Rural Appraisers, Vol. 57, No. 1, pp. 122-127, May 1993.
- Duffy, M., W. Huang, and N.D. Uri. "The Effects of Alternative Policy Options Designed to Reduce Nitrogen Fertilizer Use." Environmental International, Vol. 18, pp. 29-41, 1992.
- Chase, Craig and Michael Duffy. "An Economic Comparison of Conventional and Reduced Chemical Farming Systems in Iowa." American Journal of Alternative Agriculture, Vol. 6, No. 4, pp. 168-173, 1991.
- Chase, Craig A., Michael Duffy and William Lotz. "Economic Analysis of Varying Swine Manure Application Rates on Continuous Corn." Journal of Soil and Water Conservation, Vol. 46, No. 6, pp. 460-464, 1991.
- Chase, Craig A., Michael Duffy, John Webb and Regis Voss. "An Economic View of Maintaining High Phosphorous and Potassium Soil Test Levels." American Journal of Alternative Agriculture, Vol. 6, No. 2, pp. 83-86, 1991.
- Chase, Craig A. and Michael D. Duffy. "An Economic Analysis of the Nashua Tillage Study: 1979-1987." Journal of Production Agriculture, Vol. 4, (1), pp. 91-98, January-March 1991.
- Honeyman, M.S., and M.D. Duffy. "Pasture Farrowing Labor Use Study," Report ASL-R868, 1991 Swine Research Report ASG19, Iowa State University, 1991.
- Duffy, M., C. Chase, and W. Lotz. "Economic Impact of Swine Manure as a Crop Nutrient Source," Report ASL-R870, 1991 Swine Research Report ASG19, Iowa State University, 1991.
- Duffy, Michael D. "Comments on Alternative Agriculture." Scientists' Review Alternative Agriculture, CAST, Chapter 7, Special Publication No. 16, July 1990, pp. 99-102.
- Lasley, Paul, M. Duffy, K. Kettner and C. Chase. "Factors Affecting Farmers' Use of Practices to Reduce Commercial Fertilizers and Pesticides." Journal of Soil and Water Conservation, January-February 1990, Vol. 45, No. 1, pp. 132-136.
- Duffy, Michael. "Economic Considerations in Low Input Sustainable Agriculture." Journal of Agricultural Lending, Vol. 3, Issue 3, pp. 34-43, Winter 1990.
- Duffy, Michael. "Iowa Land Values." Realtors Land Institute, Vol. XXXX, No. 7, July-August 1988, pp. 8-9.
- Duffy, Michael and S.R. Johnson. "Agriculture and Groundwater Pollution in Iowa." EPA Journal, 14(3), April 1988, pp. 19-21.
- Crosson, Pierre, M. Hanthorn and M. Duffy. "The Economics of Conservation Technology" in No-Tillage and Surface Tillage Agriculture, J. Wiley and Sons, Inc., 1986, pp. 409-436.
- Duffy, Michael. "Farmers Use of Insecticides, Scouting, Biocontrol and Tillage Practices: Selected Results." 1982 USDA Crop and Livestock Pesticide Use Survey, in Pesticide Use Surveys,

Institute of Ag. and Natural Resources, University of Nebraska, Lincoln, Nebraska, August 1985, pp. 263-274.

Duffy, Michael D. "Agricultural Credit Crisis." The Credit World, Vol. 73, No. 5, May-June 1985, pp. 16-20.

Kuchler, Fred, Michael Duffy, R.D. Shrum, and W.M. Dowler. "Potential Economic Consequences of the Entry of an Exotic Fungal Pest: The Case of Soybean Rust." Phytopathology, Vol. 74, September 1984, pp. 916-920.

Duffy, Michael. "The Economics of Current Mushroom Pest Management Practices." Journal of Northeastern Agricultural Economics Council, Vol. XII, No. 1, Spring 1983, pp. 21-26.

### **Reviewed Staff Papers:**

Pierce, Vern, Jim Kliebenstein and Michael Duffy. "Economic and Sustainable Evaluation of Fertilizer Application Scenarios for Iowa Crop/Livestock Operations." Staff Paper #217, Iowa State University, 1990.

Duffy, Michael D. and Craig Chase. "Impacts of the 1985 Food Security Act on Crop Rotations and Fertilizer Use." Staff Paper #213, Iowa State University, 1989.

Duffy, Michael D., Roger Ginder and Stephen Nicholson. "An Economic Analysis of the Rodale Conversion Project: Overview." Staff Paper #212, Iowa State University, February 1989.

Pierce, Vern, Jim Kliebenstein, Michael D. Duffy and Per Olav Skjolberg. "Economic Evaluation of Swine Manure Utilization in a Sustainable Agricultural Production System." Staff Paper #209, Iowa State University, December 1989.

Kuchler, Fred and Michael Duffy. "Control of Exotic Pests, Forecasting Economic Impacts." USDA/ERS, AER 518, August 1984.

Duffy, Michael and Michael Hanthorn. "Returns to Corn and Soybean Tillage Practices." USDA/ERS, AER 508, January 1984.

Duffy, Michael. "Pesticide Use and Practices, 1982." USDA/ERS, AIB 462, December 1983.

Hanthorn, Michael and Michael Duffy. "Returns to Corn Pest Management Practices." USDA/ERS, AER 501, June 1983.

### **Conference Proceedings:**

Duffy, Michael. "Who Benefits from Biotechnology?" Proceedings of the 57<sup>th</sup> Annual Corn and Sorghum Research Conference, American Seed Trade Association, Alexandria, VA, pp. 171-183, 2001.

Duffy, Michael. "Iowa Farmland Taxes." Iowa's Land and Environment—Serving Competing Needs, ISU College of Agriculture, Agriculture and Home Economics Experiment Station and University Extension, Chapter 5, pp. 15-16, June 2000.

- Duffy, Michael and Matthew Ernst. "1998 Iowa Cropping Practices." The 11<sup>th</sup> Annual I.C.M. Conference Proceedings, ISU Extension, pp. 211-230, 1999.
- Duffy, Michael D. "Adjustments in Business and Practices: How Farmers Can Improve the Bottom Lines in Today's Farm Economy." Agricultural Outlook Forum, 1999 Proceedings, U.S. Department of Agriculture, Arlington, Virginia, pp. 67-71, February 22-23, 1999.
- Duffy, Michael. "How Small Farms Compete." Agricultural Outlook Forum, 1998 Proceedings, U.S. Department of Agriculture, Washington, D.C., pp. 114-119, February 23-24, 1998.
- Duffy, Michael. "Iowa Cropping Practices, 1996." The 9th Annual I.C.M. Conference Proceedings, ISU Extension, pp. 193-204, 1997.
- Duffy, Michael. "Assessing New Technology." The 9th Annual I.C.M. Conference Proceedings, ISU Extension, pp. 205-212, 1997.
- Duffy, Michael. "Testimony Before National Commission on Small Farms." Sioux Falls, South Dakota, August 22, 1997.
- Duffy, Michael. "Overview of Systems Options: Economics and Production." Swine Systems Options for Iowa, Ames, Iowa, February 1996.
- Lasley, Paul (*moderator*). "Economic Development," Understanding the Impacts of Large-Scale Swine Production, Des Moines, Iowa, June 1995.
- Duffy, Michael. "Getting Your Child Started in the Swine Business," Techniques for Improving Profitability Seminars, South Sioux City, Nebraska, September 9-10, 1993, pp. 13-20.
- Duffy, Michael. "Thoughts on the Profitability of Soil Specific Crop Management," Soil Specific Crop Management, American Society of Agronomy, 1993, pp. 245-253.
- Duffy, Michael. "Estimating Land and Water Costs: Discussion," Costs and Returns for Agriculture Commodities, ed. M. C. Ahern and V. Vasavada, Westview Press, 1992.
- Chase, Craig, and Michael Duffy. "The Promise of Strip Intercropping: Is it Economically Viable?" W. L. Hargrove (ed.), Cover Crops for Clean Water, Ankeny, Iowa: Soil and Water Conservation Society, 1991.
- Duffy, Michael. "Economic Considerations for Low Input Sustainable Agriculture for a Midwestern Farmer" in Sustainable Agriculture Research and Education in the Field, Proceedings of a Symposium, National Academy of Sciences, Washington, D.C., 1991.
- Duffy, Michael. "Economic Issues in Sustainable Agriculture." Proceedings from Extending Sustainable Systems, University of Minnesota, St. Cloud, Minnesota, May 1990, pp. 149-181.
- Duffy, Michael. "Low-Input/Sustainable Agriculture and Water Quality." Proceedings from Agriculture and the Environment: Rural Water Quality Protection, Kansas State Board of Agriculture, March 1988, pp. 72-79.

Duffy, Michael. "Keeping the Piggy Bank Full." Techniques for Improving Profitability Seminars, Conference Proceedings, Four State Swine Producers Conference, South Sioux City, Nebraska, September 1987, pp. 30-37.

Duffy, Michael. "The Economics of Conversion to Biological Farming." Proceedings of the Management Alternatives for Biological Farming Workshop—III, Iowa State University, February 1987, pp. 43-51.

### **Contributed Papers:**

Govindasamy, Ramu and Michael Duffy. "Alternative Methods for Soil Conservation to Comply with the Conservation Compliance Program." American Agricultural Economics Association annual meeting, Manhattan, Kansas, August 1991.

Chase, Craig A., Michael Duffy and William Lotz. "Economic Analysis of Varying Manure Application Rates: A Whole Farm Approach." Soil and Water Conservation Society annual meeting, Lexington, Kentucky, August 1991.

Duffy, Michael and Craig Chase. "The Promise of Strip Intercropping: Is it Economically Viable." Leopold Issue Team Report, extended summary and poster at "Cover Crops for Clean Water," Jackson, Tennessee, April 1991.

Pierce, Vern, Jim Kliebenstein and Michael Duffy. "Economic Analysis of Commercial Fertilizer Application Compared to Livestock Manure Utilization: A Sustainable Agriculture Approach." Presented at the 1990 Farming Systems Research Symposium, East Lansing, Michigan, October 1990.

Pierce, Vern, Jim Kliebenstein and Michael Duffy. "Toward Efficient Use of Swine Manure in a Sustainable Agricultural Production System." Presented at the 1990 American Agricultural Economics Association annual meeting, Vancouver, British Columbia, August 1990.

Pierce, Vern, Jim Kliebenstein, Michael Duffy and Per Olav Skjolberg. "Sustainable Agriculture: Effective Use of Livestock Manure on Crop Production." Presented at the 1989 Farming Systems Research Symposium, Fayetteville, Arkansas, October 1989.

### **Major Presentations and Testimonies:**

"Sustainable Agriculture", LEAD, NY and RULE, PA workshops, Lancaster, PA, February 2004.

"Conservation Security Program", Extension/Farm Foundation Conference, Kansas City, MO, 2002.

"Conservation Security Program and Definition of a Farm", U.S. Senate Field Hearings, Corning, IA, 2001.

"Who Benefits from Biotechnology?" American Seed Trade Association, Annual Meetings, Chicago, Illinois, 2001.

"Comparing Chemical and Organic Production: An Iowa Study," USDA, Economic Research Service, Organic Production Workshop, Arlington, Virginia, April 1999.

- “Farm Management Considerations for the 21<sup>st</sup> Century,” National Farmers Organization Annual Meeting, St. Louis, Missouri, January 1999.
- “Is Biotechnology Sustainable?” Illinois Crop Protection Clinic, Champaign, Illinois, January 1999.
- “Paralyzed Pessimists, Foolish Optimists or Positive Realists: The Choice is Ours,” Farming Profitably in a Changing Environment, Urbana, Illinois, December 1998.
- “The Role of Animals in Sustainable Agriculture,” USDA, SARE program 10<sup>th</sup> anniversary conference, San Antonio, Texas, March 1998.
- “Farmer Profitability,” National Farmers Union Annual Meeting, Albuquerque, NM, March 1998.
- “Small Farm Profitability,” Small Farms Commission, Brookings, South Dakota.
- Bultena, G.L., M.D. Duffy, S.E. Jungst, R.S. Kanwar, B.W. Menzel, M.K. Misra, P. Singh, J.R. Thompson, A. Van der Valk, and R. Willham. “Impacts of Agricultural Development on Biodiversity: Lessons for Iowa.” Presented at the World Bank Workshop on Biodiversity in Washington D.C., December 11-14, 1995.
- “Farmer/Public Attitudes to Agrichemicals: Economics of Alternative Systems.” Pesticides/ Environmental Issues Conference, Joliet, Illinois, June 1991.
- Duffy, Michael, and Craig Chase. “Economic Analysis of Varying Manure Application Rates: A Whole Farm Approach.” NCR Extension Workshop, St. Louis, Missouri, Invited paper, May 1991.
- “Management Implications of Sustainable Agriculture and an Examination of the Water Quality Goal.” North Central Region Extension Workshop, St. Louis, Missouri, May 1991.
- Duffy, Michael. “Response to Costing Land and Water Services,” at Economic Accounting for Commodity Costs and Returns, Kansas City, Missouri, Invited paper, February 1991.
- “Land and Water.” Paper review, discussion leader Conference on Economic Accounting for Commodity Costs and Returns, Kansas City, Missouri, February 1991.
- “Economic Considerations in Alternative Agriculture.” Resident Education Symposium, North Central Weed Science Society annual meeting, Des Moines, Iowa, December 1990.
- “Profitability Issues.” Growing into the Twenty-First Century, an International Symposium on Economically and Environmentally Sustainable Agriculture, Memphis, Tennessee, October 1990.
- “Economic Considerations.” Integrated Crop Management Systems Conference. Pre-conference American Agronomy Society annual meeting, San Antonio, Texas, October 1990.
- “Farm Management Practices and Environmental Considerations.” American Agricultural Economics Association annual meeting, Vancouver, British Columbia, Canada, August 1990.
- “Impacts of Government Programs on Farmer Decisions.” American Agricultural Engineers Society annual meeting, Columbus, Ohio, June 1990.

- “Economic Issues in Sustainable Agriculture,” Extending Sustainable Systems Conference, St. Cloud, Minnesota, May 1990.
- “Agricultural Policy and Economic Issues,” Fifth Annual Agricultural Machinery Conference, Cedar Rapids, Iowa, May 1990.
- “Economics of Agricultural Water Pollution Reduction.” North Central Regional Water Quality Conference, St. Louis, Missouri, April 23-25, 1990.
- “Farmer Considerations in Sustainable Agriculture.” USDA and National Academy of Sciences Conference, Washington, D.C., April 3-4, 1990.
- “Iowa’s Best Management Practices for Water Quality.” American Agricultural Economics Association annual meetings, Baton Rouge, Louisiana, August 4, 1989.
- “Economic Implications of Sustainable Agriculture.” Low-Input Sustainable Agriculture, Illinois Soil and Water Conservation Districts, Sterling, Illinois, March 11, 1989.
- “Social and Economic Impact.” The Promise of Low-Input Agriculture, A Search for Sustainability and Profitability, Soil and Water Conservation Society, Omaha, Nebraska, March 8-10, 1989.
- “Farm Machinery, Credit and Inputs.” Session moderator, Listening to Farmers on Low-Input Agriculture, USDA Conference, Washington, D.C., January 30, 1989.
- “Economic Implications of Sustainable Agriculture.” Farming for the Future: A Conference on Environmentally Safe and Profitable Farming, Association of Illinois Soil and Water Conservation Districts, Springfield, Illinois, November 4, 1988.
- “Components/Perspectives of Change: Economics.” National Workshop for State Extension Program Directors in Agriculture and Natural Resources, St. Louis, Missouri, October 19, 1988.
- “New Research: Comparing Viability of Sustainable and Low-Input Agriculture.” Transformations: Liberal Arts and Agriculture, St. Olaf College, Northfield, Minnesota, March 26, 1988.
- “Sustainable/Low-Input Agriculture.” Agriculture and Our Environment, Rural Water Quality Protection, Kansas Board of Agriculture, Topeka, Kansas, March 1, 1988.
- “Optimum Input Use by Farmers.” Water Quality In-Service Training, ISU Cooperative Extension Service, Ames, Iowa, November 10, 1987.
- “Keeping the Piggy Bank Full.” Four State Swine Producers Conference, South Sioux City, Nebraska, September 1987.
- “Debt Resolution Through Mediation: Extension–Research Linkages—A Response.” Michael Duffy and Ron Plain. Invited paper, American Agricultural Economics Association annual meeting, Preconference, East Lansing, Michigan, July 1987.
- “Two of Iowa’s Low-Input Agriculture Programs.” Michael Duffy and S. Nicholson. Selected paper, American Agricultural Economics Association annual meeting, East Lansing, Michigan, July 1987.

- “Educational Programs and Methods Using FINPACK: ASSIST.” State Leaders Meeting, University of Minnesota, Minneapolis, Minnesota, August 27, 1986.
- “The Conservation Reserve Program: Extension Ideas from Iowa.” Charles Gratto and Michael Duffy. American Agricultural Economics Association annual meeting, Reno, Nevada, July 27-30, 1986.
- “Economic Dimensions of Extension’s Soil and Water Conservation Programs.” Soil and Water Conservation for Today’s Agriculture Conference, St. Louis, Missouri, November 12-14, 1985.
- “A Comparison of Returns to Corn and Soybean Tillage Practices.” Michael Hanthorn and Michael Duffy. Selected paper, American Agricultural Economics Association annual meeting, Cornell University, Ithaca, New York, August 1984.
- “Farmer’s Use of Insecticides, Scouting, Biocontrol, and Tillage Practices, Selected Results, 1982 USDA Survey.” M. Duffy and K. Reichelderfer. The Entomological Society of America annual meeting, Detroit, Michigan, November 1983.
- “Consideration of Weather in the Estimation of a Farm-Level Production Function.” Michael Hanthorn and Michael Duffy. Selected paper, American Agricultural Economics Association annual meeting, Purdue University, West Lafayette, Indiana, August 1983.
- “An Economic Evaluation of Alternative Policies to Combat the Spread of the Gypsy Moth: A Stochastic Simulation.” Henry S. Foster, Jr. and Michael Duffy. Selected paper, Southern Agricultural Economics Association meetings, Atlanta, Georgia, February 1983.
- “An Economic Analysis of Herbicide Use on Corn in 1980.” Michael Duffy and Michael Hanthorn. Selected paper, Weed Science Society of America meetings, St. Louis, Missouri, February 8, 1983.
- “1981 Alfalfa Weevil Interim Report.” USDA Alfalfa Weevil Task Force, Otis AFB, MA, Nov. 17, 1982.
- “The Economic Consequences of Soybean Rust.” Fred Kuchler and Michael Duffy. National Soybean Rust Conference, Washington, D.C., July 22-23, 1982.
- “Economics of IPM.” 24th Annual Mushroom Industry Short Course, University Park, Pennsylvania, June 2-10, 1981.
- “Integrated Pest Management and the Mushroom Industry.” 22nd Annual Mushroom Industry Short Course, University Park, Pennsylvania, June 11-13, 1979.
- “The Economics of Corn Insect Pest Management in Nebraska.” Nebraska Agricultural Consultants Workshop, Kearney, Nebraska, March 22-23, 1977.

**Extension Yearly Series Publications:**

- Duffy, Michael. “Iowa State Land Value Survey: Overview.” ISU Cooperative Extension Service, Press release.
- Duffy, Michael. “Iowa Land Value Survey.” ISU Cooperative Extension Service, FM 1825.

- Duffy, Michael. "Estimated Costs of Crop Production in Iowa." ISU Cooperative Extension Service, FM 1712.
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