# Mark Jenner, PhD

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**Production System Economist**, adding value to agricultural products, byproducts, and residues, for farms and communities, enhancing natural resources, and creating wealth.

## Agricultural and Biomass Production System Synthesis

**Senior Environmental Economist**, World Agricultural Economic and Environmental Services (WAEES), *April* 2012 to August 2013.

Developed environmental attributes for agricultural manure, nitrogen, greenhouse gases and soil to interface with WAEES long-range, global agricultural commodity forecasts.

- Coordinated with US EPA and its contractors to develop third-party estimates of agricultural GHG emissions reflecting EPAs methods and provided feedback on methodology transparency
- Built a 24-month, cattle growth model based on US beef and dairy production data.
- Converted EPA livestock-based emissions to metrics usable by the agricultural industries.
- Compiled data and analytical models to approximate the EPA greenhouse gas estimates for agricultural soil management emissions, nitrous oxide.
- Advanced larger understanding within the company of the challenges and opportunities to align the commodity and byproduct forecasts.

**Senior Analyst**, California Biomass Collaborative, Univ. of Cal., Davis, *December* 2009 to *April* 2012 Estimated bioenergy crop adoption in the west and also translated public data on agriculture, municipal wastes, and forestry into biomass utilization metrics.

- Developed the Bioenergy Crop Adoption Model (BCAM) to determine crop acreage adoption and displacement based on profit optimization of historically grown crops. Used BCAM to estimate crop adoption and existing crop displacement of:
  - o Five energy crops on 5 million acres of California irrigated and rainfed field and forage crops.
  - o Hybrid poplars on 8 million acres of crops grown in five-state, US Pacific Northwest study area.
- Served on an interdisciplinary team at UC Davis and other institutions to estimate the economic impact of building an advanced biorefinery the Pacific Northwest with IMPLAN software and data.
- Maintained California Biomass Collaborative dataset of local existing bioenergy facilities and also worked with the Collaborative dataset of food processing residuals.
- Guided state and federal agencies on energy, environment, land use, economic impacts, life cycle assessments, and biomass production response to program incentives and regulations.

Owner, Chief Economist, Biomass Rules, LLC, <u>www.biomassrules.com</u>, October 2003 to Present. Biomass Rules, LLC, monetizes, evaluates, and clarifies benefits and costs of using biomass in all forms.

- Created custom dataset development for agricultural, composting, and anaerobic digester sectors.
- Conducted community biomass inventories estimating annual, local energy use, available biomass, and a review of conversion technologies. Recent inventories include:
  - o Berea College Farm, Berea, KY (2011), and
  - o San Benito County, CA (2008)
  - o State of Indiana's BioTown, USA Project (2006)/The BioTown, USA Sourcebook.
- Conducted value-added feasibility studies, as well as third party, due-diligence reviews for anaerobic digesters, composting operations and pellet fuel projects.
- Monthly columnist, Biomass Energy Outlook in BioCycle magazine (2007 to 2012).
- Compared the USDA, 2002 Census of Agriculture with the 2002 USDA Natural Resource Inventory (NRI) to explain differences in these land use datasets to USDA.

Adjunct Faculty, Economics and mathematics, Kaskaskia Community College, Greenville, Illinois, 2006 to 2009.

Taught macroeconomics and introductory mathematics at a rural satellite facility of the main campus 30 miles away. The economics classes were taught through distance learning.

Economist and Commodity Policy Specialist, American Farm Bureau Federation, March 1995 to October 2003.

Provided technical and economic vision to AFBF elected and volunteer leaders of the production agriculture industry on manure production and utilization, poultry grower production contracts, private property rights of fish farmers, and public data and statistics quality.

- Identified value-adding markets for manure producers and policy makers.
- Conversant on environmental, renewable energy, commodity policies for biosolids, food residuals, solid waste, biomass and other organic feedstocks.
- Creatively advanced sensitive contract poultry grower issues on the national level.
- Organized and coordinated four national AFBF poultry grower conferences (1997, 1998, 1999, 2001) after 30 years of costly, contractual friction.
- Advanced efforts of fish farmers to gain ownership-rights and statutory program standing within USDA, changing USDA enabling legislation to include aquaculture.
- Used innovative aquaculture policy strategies to bypass 20 years of static discussion that included petitioning the Secretary of Agriculture to designate farm-raised fish as livestock.
- Pushed for collection of new data series, better data security, and more appropriate use of statistics in the public policy process.
- Served as principal liaison between Farm Bureau farmers and USDA's National Agricultural Statistics Service on federal Agricultural Statistics Advisory Committee.

## Farm Production, Research, and Outreach: US, Europe and Asia (1979 to 1989)

Gained boundless vision grounded in the economic reality of global technologies and markets.

- Owner/Hog Producer, Jenner Farms, (1985 to 1989), Operated profitable Illinois feeder pig farm.
- US Peace Corps Volunteer, Nepal (1982 to 1984), On-farm cropping system research and outreach
- Swine Herdsman, Illinois and Germany (1979 to 1982), Confinement and pasture swine facilities.

## Academic Education and Training

University of Missouri - Columbia, Research Assistant (August 1988 to March 1995).

- Economics of intensive grazing system management systems PhD. Ag Econ, 1996
- Economic analysis of management alternatives for land-applied broiler litter MS Ag Econ, 1992
- System analysis of methane gas production from hog manure MS Ag Mech. Systems, 1990.
- Additional graduate research on tillage system adoption, diversified farms, and system statistics.
- Completed BS in Agronomy, 1980 (full-time student).

## Additional Activities

- Value-added Grant Proposal Reviewer, USDA-Rural Development, 2011 to present
- Bond County Board, Recycling Advisory Committee, Bond County, IL, 2008
- Technical Support to the Indiana State Department of Agriculture, BioTown, USA Task Force.
- Chaired the Technology Subcommittee, BioTown, USA Task Force
- Served on the Census of Agriculture federal advisory committee from 1995 to 2004. Chair, USDA National Agriculture Statistics Service (NASS), Ag Statistics Advisory Committee 2004.
- Chaired, Sub-committee of USDA Advisory Committee on hog estimate reporting. 2003.
- Federal Joint Subcommittee on Aquaculture, Effluent Guidelines Task Force, 1999 to 2004.

- Technical Support for Farm Bureau in the Poultry Industry Environmental Dialogue, 1998
- Chair, National Aquaculture Industry Forum, a national aquaculture coalition. 1995 1997.
- President, Bond County Pork Producers, 1986-1988.
- Charter member of U. of Missouri, Students for Practical Ag, a University farming club, that farmed 45 acres near Columbia, Missouri. 1979-1980.

## **Body of Professional Influence**

#### Refereed Articles

"Improved manure management and utilization: A systems approach." Laura McCann, Charles Abdalla, Mark Jenner, and Ray Massey. Renewable Agriculture and Food Systems: 20(3); 127–135. September 2005.

Treatment of Dilute Manure Wastewaters By Chemical Coagulation. Dennis M. Sievers, Mark W. Jenner, M. Hanna. Transactions of the ASAE. American Society of Agricultural Engineers. 1994. Vol. 37(2): 599-601.

### **Book Chapters**

Williams, James L. and Mark Jenner. 2011. Petroleum Dependence, Biofuels – Economies Of Scope And Scale; US & Global Perspective. Chapter 19 IN Energy and Power Generation Handbook: Established and Emerging Technologies. K. R. Rao. Editor. ASME Press. 2011.

Biotechnology Crops - A Producer's Perspective by Mark W. Jenner in <u>Genetically Modified Organisms in Agriculture: Economics and Politics</u>, by Gerald C. Nelson Academic Press. 2001.

Crop Input Technologies Work Group Report, C. Richard Amerman, Paul Backman, Ron Marlow, James Power, Clay Ogg, Mark W. Jenner, Laura Lengnick, Carment Sandretto, and Don Tyler IN Crop and Livestock Technologies for the 21st Century: RCA III Symposium By Burton C. English, Richard L. White, and Liu-Hsiung Chuang. Iowa State University Press. 1997

#### **Academic Documents**

Economics of annual grazing systems. 1996. Dissertation, Agricultural Economics.

<u>Grower Level Management Alternatives for Land Application of Broiler Litter.</u> 1992. Master's thesis, Agricultural Economics.

Methane Production from Anaerobic Digestion of Swine Manure by Chemical Coagulation in a Baffle Reactor. 1990. Master's thesis, Agricultural Mechanization

#### Data Analysis/Technical Reports

Stephen Kaffka and Mark Jenner, 2012, "Task 3.2.1 Energy Crop Asssessment in California Using Economic Optimization," California Energy Commission, publication number: 500-08-017. California Biomass Collaborative, <a href="mailto:biomass.ucdavis.edu/reports/">biomass.ucdavis.edu/reports/</a>

Stephen Kaffka, Mark Jenner, Garrett Liles, Doug Wickizer, Robert Williams, 2012, "Biomass Management Zones and New Pathways to Bioenergy," California Energy Commission, publication number: 500-08-017. California Biomass Collaborative, biomass.ucdavis.edu/reports/

Stephen Kaffka, Rob Williams, Mark Jenner, Ricardo Amon, Doug Wickizer, 2012. "Final Report: Task 3 California Biomass Collaborative (CBC)." California Energy Commission, PIERS Contract: 500-08-017. California Biomass Collaborative, <a href="mailto:biomass.ucdavis.edu/reports/">biomass.ucdavis.edu/reports/</a>

Amón, R., M. Jenner, M., R.B. Williams, H. El-Mashad, S.R. Kaffka, 2012. "Draft California Food Processing Industry: Residue Assessment." California Energy Commission, publication number: 500-08-017. California Biomass Collaborative, <a href="mailto:biomass.ucdavis.edu/reports/">biomass.ucdavis.edu/reports/</a>

Kaffka, S. R. and M. W. Jenner. "2010 Draft - Biofuels and Biodiversity in California: Scenarios of Biofuel Production." California Energy Commission. California Biomass Collaborative (University of California Davis). December 2010.

Completed proprietary economic feasibility study on value-added manure. May 2009.

#### Data Analysis/Technical Reports, continued

"San Benito County Sourcebook of Biomass Energy," Prepared for the Central Coast Recycling Market Development Zone. September 2008

http://www.recycleloan.org/San%20Benito%20County%20Biomass%20SourceBook.pdf

Proprietary economic feasibility study on value-added manure project. March 2008.

Proprietary economic feasibility study on value-added manure project. May 2007,

Proprietary economic feasibility study value-added pellet-fuel project. December 2006.

BioTown, USA Sourcebook. Energy use, biomass feedstock inventory and conversion technology review written for the Indiana Office of Energy and Defense Development, Indiana State Department of Agriculture and the town of Reynolds, Indiana. April 2006.

www.in.gov/oed/files/Biotown Sourcebook 040306.pdf

Proprietary economic feasibility study on value-added manure project. October 2005.

Prepared projected trade impacts on agricultural commodities of 40 U.S. Congressional Districts of imports 20 years out for clients in Washington, DC. Ross Korves and Mark Jenner. March 2005.

Analyzed and reported on land use data variability between the Census of Agriculture (USDA-NASS) and the Natural Resource Inventory (USDA-NRCS) for the USDA.

Proprietary economic feasibility study on value-added manure project. October 2004.

2003 American Farm Bureau Federation, Making \$en\$e of Regulatory Economics Series:

"Ruling Blind: Regulation without Information." #12. June 2003

"Fresh Manure Facts Reported." #11. May 2003

"Definitive Power: the Policy Impact of Definitions." #10. April 2003

"The Tragedy of the Minus Five Rule." #9. January 2003

2002 American Farm Bureau Federation, Making \$en\$e of Regulatory Economics Series:

"A 'One-Size' Rule Does Not 3,100 Counties Fit." #8. September 18, 2002

"Impacts of Regulations that are All Skewed Up." #7. September 7, 2002

"Manure Treasure Maps Revisited. #6." July 15, 2002

"Overcoming Regulatory Policy Schizophrenia. #5." June 27, 2002.

"There is No Such Thing as a Beneficial Regulation." #4. February 6, 2002

2002 American Farm Bureau Federation, Making \$en\$e of Manure Economics Series:

"Tasty Waste?... No Whey"! #13. October 3, 2002

"Making the Most of Marketing Manure." #12. April 15, 2002

"Planning and Processing Manure Efficiently". #11. March 7, 2002

"Fresh Manure Uncovered." #10. January 30, 2002

"All Manure is NOT Created Equal." #9. January 18, 2002

2002 American Farm Bureau Federation, Making \$en\$e of Contract Economics Series:

"Production Contract Pay: 'New Math' for Contract Growers". #10. October 21, 2002

"Does Flock Performance Rank = Grower Performance Rank?" #9. April 22, 2002

"Grower Cost of Operating a Broiler House Below Capacity." #8. April 9, 2002

"Understanding the Lender's Share of Grower Contract Pay." #7. January 3, 2002

2001 American Farm Bureau Federation, Making \$en\$e of Regulatory Economics Series:

"Stricter Water Rules on Aquaculture Are a Waste." #3. November 27, 2001

"Diving Into Clean Water Regulatory Economics." #2. November 21, 2001

"Regulatory Economics 101: Making Economic Sense of Regulations." #1. November 16, 2001

2001 American Farm Bureau Federation, Making \$en\$e of Manure Economics Series:

"MAN-U-Re GOOD (Man, you are good!)." #8. August 14, 2001

"Developing a Federal P-Based, Manure Land-Application Policy." #7. August 10, 2001

"An Investor's Guide to Manure Treasure Maps." #6. June 15, 2001

2001 American Farm Bureau Federation, Making \$en\$e of Contract Economics Series:

"Are Your Grower Assets Protected Contractually?" #6. October 5, 2001

## Data Analysis/Technical Reports, continued

- "Are Oklahoma Growers Company Employees?" #5. August 24, 2001
- "Tournament Compensation ...or, 'Games' Contract Growers Play." #4. July 18, 2001
- "Discovering Contract Economic Theory ...or, 'Everything You Know is Wrong." #3. June 18, 2001
- "Broiler Grower Net Farm Income." #2. May 25, 2001
- "Broiler Industry, Farm-Level Impact." #1. May 22, 2001
- The Economic Significance of the U.S. Aquaculture Industry: A case study in the benefits and costs of the industry regulation. EPA and the Aquaculture Effluent Task Force. This report became the foundation for a proposed rule with EPA. December 2000.
- Comments on the Bt Plant-Pesticides Biopesticides Registration Action Document: Preliminary Risk and Benefits Report. October 19, 2000
- 1999 American Farm Bureau Federation, Making \$en\$e of Manure Economics Series:
  - "Outcome-based Performance Standards vs. Historical Technical Practices." [#5] January 1999
  - "Scaling the Manure Mountain." [#4] January 1999
  - "Effective Policies Must Reflect Reality." [#3] January 1999
  - "Effective Manure Policies Must Build Trust." [#2] January 1999
  - "Designing Transparent Policies." [#1] January 1999
- Report of the Alternative Use Working Group. Jim Wimberly and Mark W. Jenner. Del Denney, Chair. IN Environmental Framework and Implementation Strategy for Poultry Operations. Final Report to Poultry Industry Environmental Dialogue. December 1998.
- Theory of Manure-derived Product Marketing. IN Environmental Framework and Implementation Strategy for Poultry Operations. Final Report to Poultry Industry Environmental Dialogue. Appendix 2. December 1998.
- Model Contract Provisions. AFBF. April 6, 1998.
- Generic Manure Product Market Promotion. AFBF. Discussion Draft. February 1998
- Improved grower/integrator relations would enhance poultry industry. Feedstuffs. Vol. 70, No. 11, March 16, 1998
- Opportunities for a Market-Based Environmental Policy in the Poultry Industry. American Farm Bureau Federation. February 6, 1998
- A Position of Strength. Mark W. Jenner. AFBF. January 20, 1998
- AFBF petition to the Secretary of Agriculture to designate farm-raised fish as livestock that led to inclusion of farm raised fish under USDA's Animal and Plant Inspection Service to recognize property rights.

  November 1997
- American Farm Bureau Federation Contract Growers Issue Conference: Draft Summary Report. June 1997
- Missouri Ridge Tillage Survey; Selected Findings. Donald D. Osburn, Wayne Prewitt, Pat Miller and Mark W. Jenner, 1992. Ag Lenders Seminars Report, Department of Agricultural Economics, University of Missouri-Columbia.
- Managing Land Application of Broiler Litter to Optimize Economic Value and Water Quality. Tony Prato, Joe Vandepopuliere, Charles Fulhage, Tim Haithcoat, Feng Xu, Chris Fulcher and Mark Jenner. 1991. Report No. G-1572-04. MO Water Resources Research Center.

#### Public Dataset Developed

Mark Jenner and Robert Williams, "California Bioenergy Project Database," December 2011.

#### **Pre-Publication Technical Reviews**

- Review of 2013, EPA Greenhouse Gas Inventory Report, Agricultural emission, January 2013. Evaluation of draft USDA-NRCS, Comprehensive Nutrient Management Plan (CNMP) livestock feed planning element. August 2006.
- Review of 'Manure Nutrients Relative to the Capacity of Cropland and Pastureland to Assimilate Nutrients,' by Robert Kellogg, Charles Lander, David Moffitt of NRCS and Noel Gollehon of ERS, December 2000.

### Bioenergy and Value-added Agricultural Columns

2012 BioCycle Magazine - Biomass Energy Outlook Column, Volume 53

"The Quest For Advanced Biofuels," November 2012

"Rethinking Biomass Supply Economics," October 2012

"Energy Consumption Reality Check," September 2012

"Understanding Concentrated Manure," July 2012

"Renewable Energy Consumption Grows," May 2012

"When Carbon-Based Policies Collide," April 2012

"Waste By Any Other Name May Still Be Waste," February 2012

"Good News For Nutrient Producers," January 2012

2011 BioCycle Magazine - Biomass Energy Outlook Column, Volume 52

"Biomass, Carbon with a Purpose," October 2011

"Biomass Sequestered Locally, Emitted Globally," September 2011

"Mapping Biomass Responsibly," August 2011

"Unpaved Way To Biomass Utilization," July 2011

"Less Conspicuous Consumption," June 2011

"Relatively Local Self-Reliance," May 2011

"Riding A Bioeconomic Cycle," April 2011

"Farming Fuel — Or Not," March 2011

"Emission Impossible? Maybe Not," February 2011

"Five Steps To A U.S. Bioeconomy," January 2011

2010 BioCycle Magazine - Biomass Energy Outlook Column, Volume 51

"When Well-Intentioned Policies Collide," December 2010

"The US CO2 Smackdown Is On," October 2010

"Cutting Back On The Oil Addiction," September 2010

"Making The Most of Too Much Carbon," August 2010

"CO2 Emissions Down Remarkably in 2009," June 2010

"The Business End Of Farm Manure Digesters," May 2010

"Oil Consumption and the Green Economy," March 2010

"Green Growth and Biomass Energy Export," February 2010

"Cost Of Purpose-Grown Energy Crops," January 2010

2009 BioCycle Magazine – Biomass Energy Outlook Column:

"USDA Biopreferred — A "Good" Carbon Regulation," November 2009

"Why Modular Units Balance Local Carbon," October 2009

"Legal Limits on Math," September 2009

"Renewable Energy Grew in 2008," August 2009

"Recycling Carbon Emissions into the Economy," July 2009

"Renewable Fuel Standard, Take 2," June 2009

"The Time-Value of *BioCycle*," April 2009

"The Time-Value of Infrastructure," March 2009

"Fueling Growth In A Shrinking Economy," February 2009

"Taking Stock Of 2008," January 2009

"Green Energy Consumption on the Rise," Illinois Farm Bureau, FarmWeek Perspectives (Column), Bloomington, IL. September 21, 2009

2008 BioCycle Magazine – Biomass Energy Outlook Column:

"Greening The Path That Lies Ahead," December 2008

"How Green Is Your Carbon?" November 2008

## Bioenergy and Value-added Agricultural Columns, continued

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"Regional Biomass Inventory," October 2008
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"Is There A Silver Lining In Energy Use Data?" September 2008

"Manure And The Organics Drift," August 2008

"Speculator-Driven Energy Prices," July 2008

"Algae - The Wonder Crop Of Tomorrow?" June 2008

"U.S. Biofuels: A Silver Bullet Or Harbinger Of Death," May 2008

"Bioenergy Projects Are More Than Energy," March 2008

"Supercharging Solid Waste Energy Production," February 2008

"Jam-packed Year of Bioenergy Industry Growth," January 2008

2007 BioCycle Magazine – Biomass Energy Outlook Column:

"What is the Value of Carbon?" December, 2007

"Cultivating Energy Crop Production," November 2007

"Making the Most of Growing Pains," October 2007

"Reducing the Economic Friction of Regulation," September 2007

"New Bioenergy - Combining Profit And Waste Remediation," August 2007

"Scaling the Biomass Energy Mountain," July 2007

"Tracking the Velocity of Bioenergy Growth," June 2007

"All Out Race to Commercialization", May 2007

2007 Illinois Farm Bureau, FarmWeek Perspectives (Column):

"Technology is Mightier than the Regulation." August 27, 2007.

"Manure by Any Name Would Smell as Sweet." August 13, 2007.

"Local Food, Econ 101." June 13, 2007.

"Next Generation Farm Programs." Mark Jenner, FarmWeek, Perspectives . July 26, 2006.

2005 Illinois Farm Bureau, FarmWeek Perspectives (Column):

"Lessons learned from 80 years of U.S. soybean production." November 2, 2005

"Beyond Bushels: Converting crops yields into BTUs." October 12, 2005

"Unlocking the Benefits of Manure Regulation." May 16, 2005

"Manure Science's Coming of Age Offers Hope for Regulated Livestock Producers." March 14, 2005

### Articles and Newsletters

Ricardo Amón, Mark Jenner and Stephen Kaffka., "Bioenergy Potential In California's Food Processing Residues." BioCycle March 2013, Vol. 54, No. 3, p. 47

Mark Jenner, Santiago Bucaram, Bryan Jenkins and Stephen Kaffka, "Modeling Bioenergy Crop Price and Acreage," Advanced Hardwood Biofuels Northwest E-Newsletter. 2012. http://ahb-nw.com/wp-content/uploads/2012/12/Biofuel newsletter 01 03-Final.pdf

Consulting company, Biomass Rules, LLC, internet newsletter

Burning Bio News: Biomass Rules, LLC, Volume 3, Number 5. October 2009

Burning Bio News: Biomass Rules, LLC, Volume 3, Number 4. July 2009

Burning Bio News: Biomass Rules, LLC, Volume 3, Number 3. June 2009

Burning Bio News: Biomass Rules, LLC, Volume 3, Number 2. March 2009

Burning Bio News: Biomass Rules, LLC, Volume 3, Number 1. February 2009

Burning Bio News: Biomass Rules, LLC, Volume 2, Number 7, December 2008

Burning Bio News: Biomass Rules, LLC, Volume 2, Number 6. July 2008

Burning Bio News: Biomass Rules, LLC, Volume 2, Number 5. May/June 2008

Burning Bio News: Biomass Rules, LLC, Volume 2, Number 4. April 2008

Burning Bio News: Biomass Rules, LLC, Volume 2, Number 3. March 2008

Burning Bio News: Biomass Rules, LLC, Volume 2, Number 2. January/February 2008

## Articles and Newsletters, continued

Burning Bio News: Biomass Rules, LLC, Volume 2, Number 1. December 2007

Burning Bio News: Biomass Rules, LLC, Volume 1, Number 6. August 25, 2007

Burning Bio News: Biomass Rules, LLC, Volume 1, Number 5. July 19, 2007

Burning Bio News: Biomass Rules, LLC, Volume 1, Number 4. June 19, 2007

Burning Bio News: Biomass Rules, LLC, Volume 1, Number 3. May 16, 2007

Burning Bio News: Biomass Rules, LLC, Volume 1, Number 2. May 2, 2007

Burning Bio News: Biomass Rules, LLC, Volume 1, Number 1. March 20, 2007

"Turning Local Biomass into New Energy Options, Part II." BioCycle. September 2006.

"BioTown, USA Creates Power from Waste Resources, Part I." BioCycle. August 2006.

A Summary of a Recently Released ERS Report on the Economics of Food Labeling. April 11, 2001. [Review of ERS Report entitled, 'Economics of Food Labeling,' Report no. 793, December 2000.]

Land Application of Manure is Not a National Water Quality Problem. March 20, 2001. [Review of 'Manure Nutrients Relative to the Capacity of Cropland and Pastureland to Assimilate Nutrients,' by Robert Kellogg, Charles Lander, David Moffitt of NRCS and Noel Gollehon of ERS, December 2000.]

Gene Altered Corn and the Butterfly: Can Biotechnology Survive Bad Science, Media Hype, and Environmentalists? Terry Francl and Mark Jenner. Objective Science. February 2001.

Biotech Crops: A Producer's Perspective (Part 2). Gempler's IPM Solutions. October 2000.

Biotech Crops: A Producer's Perspective. Gempler's IPM Solutions. August 2000.

Technical Analysis of the Recent Iowa State University Bt Corn Study. August 24, 2000. [Review of "Field deposition of Bt transgenic corn pollen: lethal effects on the monarch butterfly." by L. C. Hansen and J. Obrycki.]

Industrial Hemp Economics. AFBF. November 10, 1997

Pfiesteria, The Latest, Damaging Media Bug... AFBF. September 23, 1997

Guilty Until Proven Innocent. AFBF. Public Policy Digest. Volume 4, No. 2. April 1997

Farm Bureau sets aquaculture legislation goals. 'Perspective' in Fish Farming News. March/April 1997 Making Cents of Manure Nutrients. AFBF. October 1995.

### Selected Professional Presentations

Retail Meat Price Scanner Data. Leland Southard, Mark Jenner, Dawn Thilmay, and David Anderson. Selected Symposium at the American Agricultural Economics Meetings. Montreal, CA. July 29, 2003

Constraints to Non-Traditional Uses of Manure in panel on Constraints to Manure Solutions. Laura McCann, Charles Abdalla, Mark Jenner and Ray Massey. Selected Symposium at the American Agricultural Economics Association Meetings. Montreal CA. July 28, 2003.

Technical Efficiency as a Measure of Sustainability on Missouri Farms. Mark W. Jenner and Nicholas Kalaitzandonakes, 1994. Selected paper presented at the Southern Agricultural Economic Association Meetings, Nashville TN, February 5-9, 1994.

Evaluation of Methane Gas Production in a Simultaneous Regression System. Jenner, Mark W., J. Maatta and D. M. Sievers. 1991. Selected paper presented at the Applied Statistics in Agriculture Conference, Manhattan KS, April 29-30, 1991.

#### **Invited Industry Presentations**

Mark Jenner, "Unpacking the US EPA GHG Inventory Calculations for Livestock," World Agricultural and Economics (WAEES) Outlook Conference, St. Louis, MO. May 2013.

"If 'Manure' Falls in the Forest, Does it Make Any Sound?" 12th Annual BioCycle Conference on Renewable Energy From Organics Recycling, St. Louis, MO. October 29-30, 2012

Mark Jenner and Stephen Kaffka. "Energy from Biomass and California's Regulations," Tulare Farm Show, Tulare, CA, February 15, 2012

## Invited Industry Presentations, continued

- Mark Jenner and Stephen Kaffka. "Prospects for Agricultural Feedstocks for Biofuels in California," Tulare Farm Show, Tulare, CA, February 15, 2012
- Jenner, Mark. 2011. *The State of the US Carbon Economy*. BioCycle Global 2011 Conference. San Diego, California. April 12-13, 2011.
- Kaffka, Steve, and Mark Jenner. 2011. Prospects for Agricultural Feedstocks for Biofuels in California. Fourth Berkeley Bioeconomy Conference: The State of Biofuel and Biotechnology. University of California, Berkeley. March 24-25, 2011.
- "Economic simulation of biofuel crop production," Plant Science Extension Winter Conference, UC-Davis, Davis, CA, February 23, 2010.
- "Biofuel Crop Adoption in California," BREN School in Santa Barbara, CA, January 2010
- "Profitable Biomass Systems: Balancing Supply and Demand." Iowa Forage and Grassland Council, Des Moines, IA November 23-24, 2009
- "Renewable Fuel Standard Challenges and Opportunities," 9th Annual *BioCycle* Conference on Renewable Energy From Organics Recycling, Bloomington, MN. October 19-21, 2009
- "Building the Bioeconomy: The Race to Commercialization." Keynote Presentation. The 2009 Waste-to-Fuels Conference & Trade Show, San Diego, CA, May 18-19, 2009
- "Building the Bioeconomy: The Race to Commercialization." *BioCycle* International Waste Diversion, Composting, Renewable Energy Conference, San Diego, CA. April 29, 2009
- "Birth of the Biomass Energy Industries." Keynote address. 2009 Annual Meeting of the Illinois Soil & Water Conservation Society. Taylorville, IL. January 28, 2009
- "Profitable Ag Wastes of the Future," Midwest Ag Energy Network Summit: Policies to Profit in the New Carbon Economy, Rosemont, IL, December 15-16, 2008.
- "Connecting Spatial Metrics to County-Level Data," December 2008. http://biomassrules.com/articles/ConnectingSpatialMetricstoCounty.pdf
- "Algae: From Environmental Threat to Energy Solution." Environmental Professionals of Iowa Conference, Des Moines, IA, November 15-16, 2008
- "Communty Biomass Inventory of San Benito County, CA," BioCycle Conference On Renewable Energy From Organics Recycling, Madison, WI, October 6-7, 2008.
- "Manure of the Future," Manure Entrepreneurs: Turning Brown to Green, 2008 Breimyer Seminar, University of Missouri, Columbia, MO, May 22, 2008.
- "Biomass Energy Making it Work!" 7th Annual Southern Bioproducts & Renewable Energy Conference, Choctaw, MS, April 14-15, 2008.
- "Biofuel Opportunities and Challenges," 2008 Chartwell/Envirobiz Waste Industry Summit, Tampa, FL, February 24-27,2008.
- "Agronomic Implications of Biomass Energy Crop Production," 2007 Mid-Atlantic Crop Management School. Ocean City, MD. November 13-15, 2007.
- "The New Integrated Bioenergy Business Model Combining Profit And Waste Remediation," BioCycle Renewable Energy from Organics Recycling Conference in Indianapolis, IN October 1-3, 2007.
- "Making \$en\$e of Manure Energy Revenue" Renewable on Parade Conference, Washington, IA, September 20-23, 2007.
- "The BioTown, USA<sup>TM</sup> A Systems Approach to Locally Grown" Renewable on Parade Conference, Washington, IA, September 20-23, 2007.
- "Unlocking the Hidden Value of Indiana Livestock: Maximizing Output with Farm System Data." A white paper written for the Indiana Soybean Alliance.
- "Lessons Learned AFBF Production Contracts," American Farm Bureau Federation, Production Contract Conference. St. Louis, MO. April 19, 2007.
- "The BioTown, USA<sup>TM</sup> A Systems Approach to Locally Grown," US Composting Council Annual Meeting, Orlando, FL. January 20, 2007.

### Invited Industry Presentations, continued

- "The BioTown, USA<sup>TM</sup> Power Plant Vision," BioCycle, Renewable Energy from Organics Recycling Conference. Minneapolis, MN. October 31, 2006.
- Biomass Energy Outlook, Agriculture Industry Outlook, Rosemont, IL October 15, 2006.
- "The BioTown, USA Digester: One Piece of the BioEnergy System." Methane Recovery from Farm and Food Processing Waste Workshop. Midwest CHP Application Center. Peru, IN. June 6, 2006.
- "BioTown USA Biomass Feedstock Inventory." Overview of BioTown, USA Sourcebook data. Initial meeting of the BioTown Taskforce. West Lafayette, IN. February 1, 2006.
- Evaluation of Applied Research & Outreach at University of Minnesota in meeting the needs of Minnesota Agriculture. Ross Korves and Mark Jenner. January 2006.
- *Discovering the Value of Manure.* Iowa State University Biorenewable Resources Seminar. Ames, IA. April 3, 2003.
- Emerging Contract Economic Issues. Poultry Committee Meeting. Alabama Farm Bureau Federation. Cullman, AL, February 4, 2003.
- Making the Most of Manure Resources. Connecticut Farm Bureau Annual Meeting. Hartford, Connecticut. November 16, 2002.
- Regulatory Incentives for Advancing Manure-derived Energy Markets. Midwest Biomass Forum. Strategy Forum on Midwest Biomass Energy Development. Environmental Law and Policy Center and U.S. Department of Energy, Great Lakes Regional Biomass Energy Program. April 25, 2002
- Discussion paper comparing the costs of banning either the practice of feeding broiler litter to cattle or mammalian protein (meat and bone meal) to poultry, or both in an effort to strengthen food safety protocols. January 2002.
- North Carolina Farm Bureau Federation, Annual Meeting. Contract poultry production issues conference. December 2001.
- Everything You Wanted to Know about Contract Poultry Growing, but Were Afraid to Ask. AFBF National Poultry Grower Issues Conference. Nashville, Tennessee. October 29-30, 2001.
- Why is APHIS Writing Rules on Aquatic Animals. AFBF. National Aquatic Animal Health Program/Regulatory Conference. One-day session at Aquaculture 2001. Orlando, Florida. January 22, 2001.
- The Producer's Perspective on Biotechnology. AT The Policy Implications of Biotechnology in the Food Sector. Council on Food, Agriculture and Resource Economics (C-FARE). Washington, DC. May 15, 2000
- The Producer Perspective on Biotechnology. For the American Association of Cereal Chemists. Seattle, Washington. November 1, 1999.
- Applying Science to Watershed Discussions: The Watershed Heroes Conference. Jim Porterfield and Mark W. Jenner. Poster at Alliance for Environmental Stewardship: A Comprehensive Approach. St. Louis, MO. September 20-22, 1999.
- Manure, Black Gold or Black Goo. Country Mark, Crops Forum. Columbus, Ohio. December 1998.
- Manure, Black Gold or Black Goo. Country Mark, Crops Forum. Indianapolis, Indiana. November 1998.
- Our Food Systems: A Commercial Agriculture Perspective. Environmental Grant Makers Association Retreat. Houston, Texas. October 31, 1998.
- Shaping Environmental Issues. Delmarva Nutrient Management Conference. Delaware Farm Bureau, Camden, Delaware. August 19, 1998.
- Coping With the Criminalization of Livestock Production. Presented at Soil and Water Conservation Society Manure Management Conference. Ames, IA. February 19, 1998
- Producing Manure to Capture the Market. Presented at Soil and Water Conservation Society Manure Management Conference. February 19, 1998
- Shaping the Future of the Poultry Industry. AFBF. Pennsylvania Farm Bureau=s Commodity Conferences. January 28-29, 1998

### Invited Industry Presentations, continued

- How Farmers View Aquaculture Extension. Aquaculture Extension Conference. Annapolis, MD. April 12, 1997
- Incentives: Enhancements and Big Sticks. AFBF Contract Growers Issues Conference. Birmingham, Alabama. March 18-19, 1997
- Reinventing Manure. National Academy of Sciences. Conference on Livestock and the Environment. March 10, 1997
- The Challenge and Opportunity of Resolving Grower/Integrator Relations. Iowa Poultry Symposium. Ames, Iowa. February 25, 1997
- Manipulation of Environmental Laws to Suppress Commercial Animal Production. National Poultry Waste Management Symposium. Harrisburg, Pennsylvania. October 22, 1996.
- Reinventing Manure: Managing Nutrients by Adding Value. American Farm Bureau Federation, Watershed Heroes Conference, June 1996.
- Manure Management: Does it Cost or Pay? American Farm Bureau Annual Convention. Reno, Nevada January 1996.
- An Economic Analysis of Land Application of Broiler Litter in the Shoal Creek Watershed. Barry County, Missouri. Tony Prato, Feng Xu, and Mark W. Jenner. 1992. Paper presented at the Water Quality Conference, Columbia, MO, January 29-30, 1992.
- Farm Level Management Alternatives to Land Application of Broiler Litter. Paper presented at 9th Annual Research and Creative Activities Forum, University of Missouri-Columbia, February 29, 1992.

#### **Panel Discussions**

- "Fostering The Energy Sea Change," Panelist, Biomass Rules, LLC. BioCycle, Renewable Energy from Organics Recycling Conference. Minneapolis, MN. October 31, 2006.
- As a Farm Bureau staff, participated in panel on innovative strategies at US EPA, Region 6, Non-point source conference, Fayetteville, Arkansas. April 13-14, 1999.

#### Public Agency Presentations

- Mark Jenner, "MAN U Re GOOD: A Review of Manure Valtion" Digesting Digesters 2012, workshop for State of California Managers, Davis, CA January 2012
- Jenner, Mark. "Net Zero Davis: Carbon Efficiency in Bio Communities," Net Zero Davis Taskforce, Davis, CA October 2011.
- "Economic Simulation of Biofuel Crop Adoption," Presentation to USDA at California FSA office on USDA biofuels roadmap. November 1, 2010.
- "Economic Simulation of Biofuel Crop Adoption," Presentation to economists and modelers at the California Department of Water Resources. Sacramento, CA June 29, 2010

#### **Poster Presentations**

- Mark Jenner, Santiago Bucaram, Stephen Kaffka, and Bryan Jenkins. "Bioenergy Crop Adoption Model (BCAM)," Poster Presentation at USDA, NIFA, AFRI-Advanced Hardwood Biofuels Project Annual Meeting, Boardman, OR. September 2012.
- Mark Jenner, Santiago Bucaram, Stephen Kaffka, and Bryan Jenkins. "Building Regional Enterprise Budget Input Files for BCAM," Poster Presentation at USDA, NIFA, AFRI-Advanced Hardwood Biofuels Project Annual Meeting, Boardman, OR. September 2012.
- Jenner, Mark, Maximo Alonso, and Steve Kaffka. 2011. Regional Bioenergy Crop Adoption in California, Poster. California Biomass Collaborative Forum, University of California, Davis. April 4-5, 2011.
- "Economic Simulation of Biofuel Crop Adoption," Poster at California Biomass Collaborative Annual Forum, Davis, CA May 2010.
- "Bioenergy by The Numbers" Iowa State University Bioeconomy Conference, Ames, IA, September 8-9, 2008.

#### Poster Presentations, continued

- "Indexing Bioenergy Regulations for Economic Growth, Environmental Benefit, and limited Risk. Iowa State University Bioeconomy Conference, Ames, IA, September 8-9, 2008.
- The Impact of Management on the Classification of Broiler Litter. Mark W. Jenner, Tony Prato and Feng Xu. Poster presented at the American Agricultural Economic Association annual meetings in San Diego, CA, August 7-10, 1994.
- Managing Land Application of Broiler Litter to Optimize Economic Value and Water Quality. Tony Prato, Tony, Feng Xu, and Mark W. Jenner. Poster presented at the Southern Agricultural Economic Association Meetings, Lexington KY, February 2-5, 1992.