

Mark Jenner, Ph.D.,
Chief Analyst, Biomass Rules, LLC
Phone: 618.664.9687

1000 E. Harris Avenue, Greenville, IL 62246
mjenner@biomassrules.com

Biomass Systems/Regulatory Economist providing strategic solutions for utilization of all biomass, new market development of food, fiber, and fuels, and streamlining regulations.

Biomass Production System Synthesis

Biomass Rules, LLC, October 2003 to Present

Mark Jenner, PhD, is Owner/Chief Analyst of Biomass Rules, LLC. Jenner's economic vision for bioenergy opportunities and challenges is unparalleled.

Biomass Rules, LLC is rooted in agriculture and environmental compliance. Current projects include biomass inventories, value-added feasibility studies, moving livestock producers from compliance to manure revenue, and developing a model regulatory index that credits the environmental benefits.

Jenner's bioeconomic frontier vision shapes his work like:

- **Community Biomass Inventories** are assessments based on an estimate of annual energy use, an inventory of available biomass, and a review of conversion technologies. These three components form the basis of energy estimates that could be replaced by biomass.
 - The most recent inventory was conducted for San Benito County, CA (2008).
 - The initial inventory was The BioTown, USA Sourcebook written for the State of Indiana's BioTown, USA Project (2006).
- **Value-Added Feasibility Studies** for anaerobic digesters, composting and pellet fuel projects. Also conducts third party due-diligence reviews for other feasibility studies and proposals.
- **Regulatory Review and Analyses**, including manure regulation and emerging carbon policies.
- Author of monthly, **Biomass Energy Outlook** column in BioCycle Magazine (2007 to present)
- Author of his own monthly newsletter, **Burning Bio News**, a 'scorecard' for bioenergy adoption and can be found on his website (www.biomassrules.com). 2007 to present.
- Frequent speaker on biomass economics and industry development.

Mark Jenner has worked for the USDA, National Agricultural Statistics Service (NASS), comparing the USDA, 2002 Census of Agriculture with the 2002 USDA Natural Resource Inventory (NRI) to explain differences in results (by state) for these two USDA landuse data tools. He has also analyzed Land Grant University spending on applied research, and collects feedstock and production data for interested clients.

Biomass Policy and Regulation Implementation

Manure Visionary, American Farm Bureau Federation, March 1995 to October 2003.

Manure resource policy successes – Raw manure supplies overwhelm raw manure demand. Mark identified substitute markets for processed manure products. He is nationally recognized for advancing the vision of manure and other organic residuals as a resource. Conversant with environmental, renewable energy, commodity regulations and policy incentives. Familiar with nuances of biosolids, food residuals, solid waste, biomass and other organic feedstocks.

Production contract economic accomplishments – Growers want credit for their good work. Jenner helped growers and companies understand subtle economic impacts of production contracts. Constructively advanced sensitive contract poultry producer issues on the national level. Organized and coordinated four national AFBF poultry grower conferences (1997, 1998, 1999, 2001).

Aquaculture and fish farming policy achievements – Fish farmers have limited private property ownership rights, falling under public property statutes. Advanced efforts to gain ownership-rights.

More information on analyses and presentations are available on www.biomassrules.com

Staff liaison of the AFBF petition to the Secretary of Agriculture to designate farm-raised fish as livestock, leading to the development of a national aquatic animal health plan through USDA's Animal and Plant Inspection Service. After 20 years of failed legislative efforts to restore private property rights to farmed fish, this petition was a regulatory innovation that received national attention.

Statistical Research/Analytical Accomplishments – Jenner pushed for collection of new data series, better data security, and more appropriate use of statistics in the public policy process. Was principal liaison between Farm Bureau's farmers and USDA's National Agricultural Statistics Service (NASS). Worked with NASS to protect respondent confidentiality.

Biomass Technical Research and Education

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

- Economics of intensive grazing system management systems – **PhD. Ag Econ, 1996**
- Analysis of Missouri conservation tillage system adoption – 1992 to 1995
- Comparison of farming system efficiency between specialized and diversified farms 1994
- Economic Analysis of management alternatives for land-applied broiler litter – **MS Ag Econ, 1992**
- Simultaneous regression analysis of a two-digester system methane gas production – 1991
- System analysis of methane gas production from hog manure – **MS Ag Mech. Systems, 1990.**
- Completed BS in Agronomy, 1980 (full-time student).

Biomass Global Vision and Production Experience Anchor

Experience In Production Agriculture In The US, Europe And Asia (1979 to 1989)

At a formative time in my career, I worked in production agriculture on three continents. This provided a boundless vision that is grounded in the economic reality of existing technologies and markets.

- **Owner/Hog Producer, Jenner Farms, (1985 to 1989)** Owned and operated a profitable feeder pig farm in Greenville, IL.
- **United States Peace Corps Volunteer, Nepal (1982 to 1984)** Served as extension worker for cropping systems program as well as on-farm researcher and site consultant.
- **Swine Herdsman, Illinois and Germany (1979 to 1982)** Swine herdsman in several large confinement and pasture farrow-finish swine facilities.

Additional Activities

- **Bond County Board, Recycling Advisory Committee, Bond County, IL, 2008**
- **Adjunct Faculty, Kaskaskia Community College, 2006 to Present.**
- **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.** First while it was administered by the Commerce Department and later after it moved to the USDA National Agriculture Statistics Service (NASS). **Chair, of Ag Statistics Advisory Comm., 2004.**
- **Chaired, Sub-committee of USDA Advisory Committee on hog estimate reporting. 2003.**
- **Joint Subcommittee on Aquaculture, Effluent Guidelines Task Force, Economic Subcommittee, 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.**
- **Charter member of University of Missouri, Students for Practical Ag – a club for non-farm ag students to gain practical agricultural experience. 1977-1980.**

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