

Burning Bio News

Adding Clarity and Understanding to all things Bio

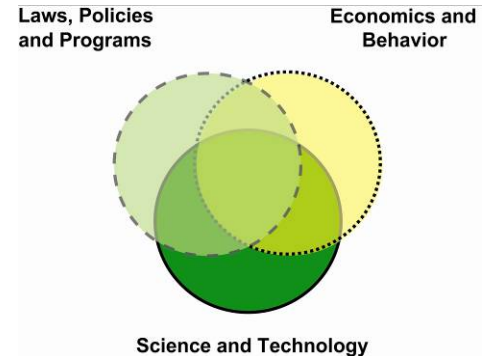
www.biomassrules.com

Mission: Guide the strategic utilization of all biomass; create new markets for food, fiber and fuels; and streamline regulations.

Welcome to the first issue of Burning Bio News! This is a new adventure for us all, because all biomass energy news is on the economic frontier. No one has a historical perspective - or data - with which to forecast. So here we go. Hang on!

As an advocate for manure producers in political agriculture it became apparent that every political perspective is based on a different definition of the issue. Often the contentious issues are debated for years, because issue adversaries define their terms differently than each other - even though they are using the same words. It is difficult to move forward if key words in the debate have different meanings.

For our purposes, I tend to break biomass terms into three categories: 1) Science and Technology (biological, chemical and physical facts), 2) Economics and Behavior (reflecting human choice), and 3) Laws, Policies and Programs (which set decision boundaries between human behavior and scientific truth).



These three categories form the framework in which the breaking or burning biomass news will be summarized: 1) Bioscience, 2) Bioprojects, and 3) Biopolicy.

Bioscience (science and technology)

January and February brought announcements of research being conducted in both UT and AZ on the **production of algae** for use in biodiesel production. The technology to **reduce methane gas storage** by 180 times its volume using a corncob briquette was announced (Kansas City, MO). BP announced it was investing \$500 million in future bioscience by funding **bioenergy research** at UC Davis and University of IL-Edwardsville.

In the biocomposite materials world, MI is doing research on using **manure fibers and resins** to develop new fiberboard products. Also, Stanford University demonstrated **biocomposite building materials** can be recycled more quickly than wood, reducing waste and producing energy. There was also an announcement by BIOGAZ from MEDAL that they have a new **membrane technology** that converts landfill gas to pipeline quality natural gas.

Bioprojects (economics and behavior)

Burning Bio News tracks predominately commercial-scale biomass projects. Most of the biomass projects relate to energy, but commercial composting projects and biobased industrial projects are also included. Rather than list each project news article, the statistics across various categories are summarized to illustrate both the scope and volume of projects being implemented. In January and February, 62 bioprojects were listed on www.biomassrules.com.

These broke out by state as:

<u>Number of Projects</u>	<u>State(s)</u>
11	CA
6	FL
5	IN and NY
4	GA and WI
3	MO and OR
2	CO, KS, and NM
1	AL, AZ, HI, IA, ID, IL, LA, MD, ND, NE, OH, OK, SC, SD, and WY

As I ramp-up to tracking biomass news, I am getting better at catching the news. This initial list is likely incomplete.

Bioprojects (continued)

Sorting these 62, January/February bioproject news stories by energy product (output):

<u>Energy Product</u>	<u>Annual Rated Capacity</u>
Ethanol (includes cellulosic)	1,173 million gallons ethanol
Biodiesel plants	275 million gallons biodiesel
Electricity	63.8 MW biomass generating capacity
Fuel Pellets	680,000 tons (new capacity is 60% of annual North American supply) (a single new FL facility is will be 550,000 ton for export)
Bioresins/bioplastics	55 million gallons (a single facility in CA)

Some of the projects, especially the six DOE funded cellulosic ethanol plants, produce multiple outputs. These include the production of lignin, gypsum, yeast, hydrogen and ammonia in significant amounts. This list may not include all projects.

One more dimension that clarifies these numbers is the stage in which a given project is in. For instance an idea for a project is classified as 'Proposed.' There are four categories at the moment. They are fairly self explanatory.

<u>Project Stage Category</u>	<u>Number of News Stories</u>
Proposed	21
Planning (pre-construction)	18
Under construction	14
In operation	6
Table/postponed	1
Not available	2

So this means that 21/62 bioproject news stories are project announcements that may not have an address or begun the local and environmental permitting process. Nearly another third (18/62) are in the permitting, local approval process. Another third (20/62) are under construction or in operation. The Tabled/postponed category was established because there are projects that are in the news because the investors have changed their minds.

Biopolicies (laws, policies and programs)

Biomass policy covers a broad range of regulations and incentive programs. It also includes non-governmental incentive programs and legal challenges (crime). Biopolicies set boundaries between human choice and natural resources (science).

Federal Policies - During January and February 16 federal policy announcements were made by the Environmental Protection Agency (EPA), US Dept. of Agriculture (USDA), and the Dept. of Energy (DOE).

- EPA biopolicy news covered the widest range of policies from environmental crime (feedlot Clean Water Act violations), data gathering (Greenhouse Gas Inventory), policy guidance documents, financial programs and even one policy on performance standards for anaerobic digester protocols.
- USDA policy news covered farm bill proposals, budget requests and conservation program standards. All of the USDA programs are expansions of the traditional food programs into energy and biobased product development.
- The DOE programs dealt with data collection (voluntary greenhouse gas reporting), biomass energy meeting announcements and announcements of the six funded commercial-scale cellulosic ethanol plants.

Non-governmental biomass policy news covered mostly economic analyses and non-governmental incentive programs. Green credits were covered twice. One article discusses the participation of state and local entities in the Kyoto-driven green credits, even though the US government hasn't signed the treaty. In addition to several announcements of non-governmental funding for biomass projects, there was a very interesting article about Maine's Master Logger Certification Program. This program certifies that loggers (biomass harvesters) are meeting designated harvesting/practice standards.

Finally environmental legal challenges/crime was reported multiple times. Already mentioned were Clean Water Act violations (EPA). In Texas some trees were stolen for firewood valued at \$75,000, and a court case in Missouri was reported that is dealing with the environmental impact of a proposed ethanol plant.

Best Bio-Quote : In response to energy supply questions, Mark Sardella, Santa Fe, NM said, "Biomass grows on trees."

The frequency of this newsletter will be initially set on a monthly basis. Mark Jenner, mjenner@biomassrules.com