

# Burning Bio News

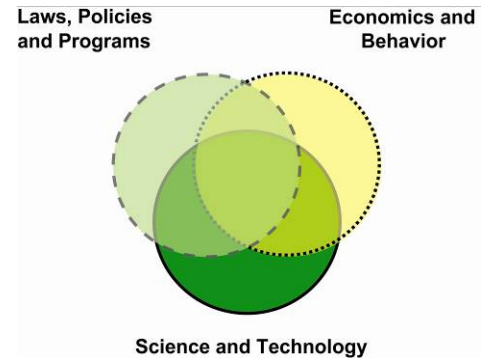
*Adding Clarity and Understanding to all things Bio*

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 second issue of Burning Bio News!** I learned a lot with the first issue, and on the fly, reformatted my databases to facilitate writing this newsletter. Naturally, Issue Number 2 is several weeks late...

**The Basic Structure of This Newsletter** Experience has shown that the context in which terms are discussed changes the meaning. The functional universe at Biomass Rules, LLC consists of 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.

By classifying the daily biomass news into these three categories, it is a bit easier to understand the implications of the news. It isn't a perfect structure, but one that takes us beyond the pure frenzy of adding a new ethanol plant to each Midwestern county.

## Bioscience (science and technology)

March brought news that corn production was going to increase to 90.5 million acres (15% increase over last year) in response to the increased price of corn for ethanol production. Purdue University Professor, Rakesh Agrawal, proposed to increase the efficiency of gasification by pumping hydrogen into the gasifier. Packerland Whey Products, WI, is proposing to build an ethanol plant using whey as a feedstock. A Polytechnic University Researcher has bioengineered a fuel-latent plastic from vegetable oil that can be converted into biodiesel when the plastic is no longer needed. N-Viro successfully completed a test burn at Michigan State University of a biosolids-derived fuel.

Other news included advances in biocomposite resins by EPA and the Dept. of Defense. Virginia Tech is advancing plastic from poultry feathers and Solazyme, Menlo Park, CA, has tweaked the algae's genes, turning the microscopic plant into an oil-producing machine.

## 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. In March, 72 bioprojects were listed on [www.biomassrules.com](http://www.biomassrules.com). These broke out by state as:

| <u>Number of Projects</u> | <u>State(s)</u>   |
|---------------------------|---|
| 10                        | CA  |
| 7                         | IN  |
| 5                         | WI  |
| 4                         | IA, IL, and OH  |
| 3                         | MI and PA   |
| 2                         | AL, CO, HI, and TX  |
| 1                         | AK, AR, AZ, CT, FL, KS, KY, LA, MA, ME, MN, NE, NM, OK, OR, VA, VT, WA, and WV. |

The top three states: CA, IN and WI, also had at least 4 projects announced in the first two months of this year (Jan/Feb).

## Bioprojects (continued)

Sorting these 72, March bioproject news stories by energy product (output):

| <u>Energy Product</u>         | <u>Annual Rated Capacity</u>  |
|-------------------------------|---|
| Ethanol (includes cellulosic) | 1,704 million gallons ethanol (455 million gallons under construction).       |
| Biodiesel plants              | 416 million gallons biodiesel (119 million gallons already operational).      |
| Electricity (biomass power)   | 490.7 MW generating capacity (10 MW operational,<br>90 MW under construction) |
| Electricity (landfillgas)     | 10.7 MW generating capacity (all operational)                                 |
| Electricity (biodiesel)       | 5.0 MW generating capacity (all operational)                                  |
| Electricity (manure)          | 1.3 MW generating capacity (9 proposed dairies in CA)                         |
| Fuel Pellets                  | 35,000 tons (only one of three proposed projects listed their capacity)       |

Most notable of the above is the significant growth of biomass power plants (electricity from biomass).

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 five categories at the moment. They are fairly self explanatory.

| <u>Project Stage Category</u> | <u>Number of News Stories</u> |
|-------------------------------|-------------------------------|
| Proposed                      | 24                            |
| Planning (pre-construction)   | 20                            |
| Under construction            | 15                            |
| In operation                  | 12                            |
| Table/postponed               | 1                             |

One third (24/72) bioproject news stories are project announcements that may not have an address or have begun the local and environmental permitting process. Nearly another third (20/72) are in the permitting, local approval process. Another third (27/72) 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).

### Money/Incentives that were awarded:

- The State of IL awarded \$510,000 in ag innovation and sustainable ag grants.
- The City of Portland, OR paid \$450,000 to 5 biodiesel-related Oregon businesses
- CT Clean Energy Fund selected 11 rate-payer subsidized projects for 85 MW capacity
- NC tobacco settlement group, Golden LEAF, awarded \$3 million in energy grants.
- A Cleveland, OH business was awarded \$70,000 EPA Innovation Research Grant
- DOE selects 5 ethanol conversion projects to award \$23 million.

**"Best of the show"** was a \$10,000 award that was given by an IA ethanol plant to the Future Farmers of America (FFA). There is something very empowering about locally grown energy money funding youth and education programs.

### Bioenergy and the Law:

- Several cities in CA, including San Francisco, banned nonbiodegradable Styrofoam on any product sold in those areas.
- Broin (Poet) sues former employees over trade secret issues after they went to work for a competitor.
- VeraSun is suing an equipment manufacture after a defective fan explodes in IA.
- Hormel is suing an ethanol plant for odors that will taint its food product taste.
- OK and US congress write legislation to designate manure is not a hazardous waste.
- KY bans out-of-state firewood to control emerald ash borer spread.
- NC hog industry grows during 10 year moratorium on expansion - interesting policy effect.

**Most onerous lawsuit:** Milton, WI officials violated the state's open door meeting laws as they courted an ethanol project over several years. In local communities the line can be very fine between doing business and insider deals. Be Careful!