

**Washington Bioenergy – Status and Overview**  
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The report for August, 2005 will not include the larger document but rather focus on some key items:

Perspective

Chad Kruger and Craig Frear attended Iowa State University's Growing the Bioeconomy conference. They brought back some key perspectives as follows:

1. "It is clear that in terms of technical R&D, we (WSU, Washington, the PNW region) are being left in the Stone Age. . . The fact that corn and soybeans existed as major crops in Iowa before ethanol and biodiesel made biofuels a no-brainer investment for them – **but it is a major hurdle for us as we are talking about “emerging” feedstock crops and not a market glutting amount of existing crops.**
2. **We really need to get serious immediately about clearly articulating what a PNW-specific bioeconomy might / should look like.**” - Quote from Chad Kruger, WSU (bolding for emphasis by Dave Sjoding).

An Emerging Biopower Issue

Three dairy CHP/digester projects were put on hold pending resolution of a series of questions regarding the recent EPA's Air Quality Compliance agreement on Animal Feeding Operations Air Agreement

<http://www.epa.gov/compliance/resources/agreements/caa/cafo-agr-0501.html> . This agreement has triggered a host of questions by dairy farmers regarding CHP/digester systems. Specific questions include:

1. What does a digester do for those air emissions being regulated by EPA (ammonia, hydrogen sulfide, VOC, particulate matter)
  - Will a digester solve my odor problem? How about the lagoon with the effluent from the digester? Is there still odor from the digested effluent when applied to the land?
3. What does a digester do to solve the nutrient loading problem on my land (primarily P, but also N)?

Washington State University is working with the dairy farmers to resolve these questions.

Key Highlights

There are five highlights for this month's report:

- 1) U.S. Senator Cantwell conducted a two day tour and meetings in eastern Washington Counties to discuss biodiesel in early August.
- 2) A WSU bioproducts/bioenergy meeting was held in Pullman, WA on August 19, 2005;
- 3) Triple-Bio (Bioenergy, Bioproducts and BIOAg. BIOAg focuses on capturing ecosystem services including energy efficiency [reducing the use of fuel and fossil energy based fertilizer inputs to agriculture and the use of biological controls of pests]) continues to emerge as a major program development initiative at WSU;
- 4) A five page summary of WSU's biopower/anaerobic digestion efforts has been developed. Over \$3 million dollars has been committed to reduce costs, add additional related bioproducts and bring this technology to the Pacific Northwest and beyond. It is entitled *Anaerobic Digestion at Washington State University: Research, Demonstration and Outreach Efforts*. A similar summary of the two decades of biofuel efforts is being developed; and
- 5) Updates have been made to the Pacific Biomass website including: 1) The events section now has the Alaska Rural Energy Conference and the Global Oil Depletion Conference added to it; 2) The net energy balance portion of the library under Ethanol has the latest PowerPoint from Argonne National Laboratory and a link to the GREET model; 3) A Regional and state level activities/news section is now on line; 4) An intranet/password protected area is also being developed.