

# BioEconomy *Update*

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## Iowa's BioEconomy is a Reality

According to the recently released Battelle Report, Iowa's BioEconomy is no longer a long-term dream; rather, it is becoming a reality, and it's a reality that Iowa State University and BIOWA are leading.

The report, prepared by the Battelle Memorial Institute, was commissioned by the Iowa Department of Economic Development to help gain an understanding of Iowa's core competencies and opportunities in the biosciences. A copy of the full report, and edited sections of the report that relate specifically to the BioEconomy, can be accessed at: [www.ciras.iastate.edu/bioindustry/](http://www.ciras.iastate.edu/bioindustry/)

The Battelle Memorial Institute selected technology development platforms, including the BioEconomy, which the state of Iowa should develop, focus and invest in to strengthen Iowa's economy. The platforms were selected based upon criteria set by the researchers. These criteria included existing research focus strengths, existing or emerging commercial opportunities and product market potential, among others.

The BioEconomy is defined in the report as "focused on the commercial application of bioresources to the production of energy, industrial commodities and specialty products." Examples of this include ethanol, biodiesel, biobased lubricants and fibers.

In terms of the criteria, the researchers found a \$5.1 billion market potential for lubricant sales. Also, Iowa State University was recognized as "central to the state's initiatives in the

BioEconomy." The University is leading research in the BioEconomy with such programs and organizations as the Iowa Industries of the Future and the BIOWA Development Association. These two organizations were recognized and attributed with nurturing the growth of the BioEconomy in Iowa.

New departments and centers at Iowa State University, including the

Center for Sustainable Environmental Technologies, Center for Catalysis, Center for Crops Utilization Research and the Plant Sciences Institute, are leading the state in driving the BioEconomy forward. The Institute stated it found Iowa State University has a structure in place for moving the research from bench (laboratory) to marketplace.

The Battelle Memorial Institute made recommendations in the report for further growth in the economy. In order to strengthen Iowa's economy, the report states that increased funding and continued support of BioEconomy organizations and centers throughout the state would make a lasting impact on the economy.

Jill Euken, biobased industrial specialist with ISU Extension/CIRAS, points out that the Battelle report challenges Iowa regents institutions to come closer in relationships to industry and be willing to work out new relationships that will benefit both. "How well and quickly we build these new public/private relationships and partnerships may well determine whether Iowa does indeed 'dominate in the commercialization of the BioEconomy platform.'"

### The Battelle Report

The report, commissioned by the Iowa Department of Economic Development, states the BioEconomy in Iowa has great potential for strengthening Iowa's economy.

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## Conference Examines BioEconomy

“We are at the dawn of the bioeconomy,” Stanley Johnson, vice-provost for Extension at Iowa State University, said as he welcomed attendees to the Biobased Industry Outlook (BIO) Conference on March 8.

Iowa State University and BOWA hosted the two-day 2004 BIO Conference. The conference, targeted to those interested in the bioindustry, highlighted different aspects of the BioEconomy and gave attendees a look at what the future holds for biobased products.



“The conference demonstrated again that Iowa is a leading force at the dawn of the BioEconomy. Researchers, growers and manufacturers shared their current successes, and expanded their networks for future needs. The continued involvement of the USDA and the Department of Energy in Iowa is also stimulating new partnerships that will produce significant results,” said Jill Euken, ISU Extension field specialist.

Researchers from Iowa State University and the University of Iowa showcased their accomplishments and discussed the impact their research will have on Iowa and the Midwest during a poster session on March 7. The research projects are funded by the Iowa Biotechnology Bioproducts Consortium and the Ames Laboratory Biorenewables Consortium.

George Anderl, CEO of Genencor, Int., and president of the BOWA board of directors, followed Johnson’s welcome on March 8 by presenting the cur-

rent state of the bioindustry in Iowa. Merlin Bartz of the USDA and James Fischer of the DOE followed with presentations about plans and projections for the bioindustry. Floyd Barwig, director of the Iowa Energy Center, explained the STAC program and its impact on Iowa and the Midwest.

Following a bioindustry success story panel, Mike Blouin spoke about areas in which Iowa needs to excel to bring more economic development to the state. Blouin, the director of the Iowa Department of Economic Development, explained that the BioEconomy is one of three areas in which Iowa can grow. According to Blouin, Iowa has the potential to be a world leader in biomass production and now is the time to start growing the BioEconomy.

The first afternoon session broke down each link of the biobased value chain. Experts from Iowa State University provided a description of the challenges and opportunities of each link. They also highlighted the current and future directions of research.

The final session focused on the new Federal Biobased Products Preferred Procurement Program (FB4P) developed by the USDA. Marvin Duncan from the USDA was on hand to explain the section of the 2002 Farm Bill, which outlines the FB4P and how it will affect the bioindustry. Other speakers explained specific ways to get involved in the program.

Sponsors for the conference include the Office for Biorenewables Programs, BOWA Development Association, Iowa Biotechnology Byproducts Consortium, Biorenewable Resources Consortium, ISU Extension, Iowa Energy Center and the Center for Crops Utilization Research.

For more information about the Biobased Industry Outlook Conference, or to view the presentations from the conference, visit the Web site at [www.ciras.iastate.edu/bioindustry/bioconference](http://www.ciras.iastate.edu/bioindustry/bioconference).

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## **A Closer Look: B4 Ventures, LLC.**

An Iowa company, B4 Ventures, LLC. of Mount Vernon, recently was awarded GSA Advantage by the federal government. This award allows B4 Ventures, LLC. to sell their biobased hand sanitizer, Avant Original™, to the federal government. However, with the help of Iowa State's Center for Industrial Research and Service (CIRAS) and the implementation of the new Federal Biobased Products Preferred Procurement Program (FB4P), B4 Ventures' biobased product may soon get preferential treatment in the federal purchasing process.

The FB4P was written into the Farm Security and Rural Investment Act of 2002 and requires federal agencies to purchase biobased products when those products meet certain standards set by the U.S. Secretary of Agriculture. The term 'biobased product,' as defined by the act, means a product determined by the U.S. Secretary of Agriculture to be a commercial or industrial product that is composed in whole or in significant part, of biological products or renewable domestic agricultural materials or forestry materials.

In order to get this program started, the USDA is gathering information about biobased products and companies. To collect this data, ISU is developing an online information system, engaging manufacturers to participate, establishing a carbon-14 testing lab and documenting the process in order to become ISO9000 certified.

B4 Ventures, LLC. is one of the Iowa manufacturers CIRAS is working with. The company is working to complete the steps necessary to designate the biobased hand sanitizer for the program. According to Chief Operating Officer Chad Stamper, the sanitizer, which contains a corn-based ethanol as its active ingredient, has been carbon tested and is waiting other tests. "We have been working closely with Steve [Devlin] at CIRAS to get this product designated. We have also been work-

ing with Glenn Norton to submit two new products for testing and designation. Those products include a hand soap and a hand lotion," Stamper said. B4 Ventures, LLC. is helping lead the way for Iowa manufacturers in this program.

B4 Ventures, LLC.'s participation in the FB4P has been crucial in terms of getting the program underway. "Manufacturers' participation in and support of this program will have the greatest effect on speeding up the process of implementing this program," CIRAS Program Manager Steven Devlin said. "It is easy for other Iowa manufacturers to start this process of designating products for the FB4P. They need to visit the Web site, download the product information sheet and return it to us [CIRAS] as soon as possible," Devlin said. This information can be found at [www.biobased.oce.usda.gov](http://www.biobased.oce.usda.gov).

Once the FB4P is underway and products have been designated as biobased, manufacturers, like B4 Ventures, LLC., will be able to market their biobased products to the federal government. The final guidelines for establishing the FB4P are still being developed. ISU expects the program will be ready to begin once the details of the bill have been determined.

More information about the FB4P initiative can be found on the CIRAS website at [www.ciras.iastate.edu](http://www.ciras.iastate.edu).

For more information about B4 Ventures, LCC., visit their website at [www.b4brands.com/](http://www.b4brands.com/)



Produced with 60 percent ethanol made from corn, a renewable natural resource

Formulated for frequent usage environments, such as medical institutions, schools, daycares, and restaurants

Kills 99.99 percent of germs in as little as 15 seconds

### **Project Supporters**

The BioEconomy Working Group is a working group of the Value Chain Partnerships for Sustainable Agriculture (VCPA) project funded by the W. K. Kellogg Foundation at Iowa State University. Financial support comes from five key partners: Leopold Center, Iowa Energy Center, Cargill-Dow, BIOWA and the US Department of Energy.

# Kellogg Site Visit Showcases BWG Activities

Gail Imig, from the W.K. Kellogg Foundation recently made a two-day visit to evaluate the Value Chain Partnership for Sustainable Agriculture (VCPSA) projects. During her visit, she spent half of one day with the BioEconomy Working Group (BWG) initiative.

VCPSA is one of eight projects in the Higher Education-Community Partnerships program of the Kellogg Food and Society Initiative. The ISU project was selected for funding from more than 120 proposals.

One of the initiatives funded by VCPSA is the BWG. The working group is comprised of over 30 people representing farmers, non-profit organizations, processors, manufacturers and academia. The group is working to explore and develop new supply chain models for biobased businesses. In addition, the BWG is developing a matrix defining economic, environmental and social sustainability for all links of biobased supply chains. The working group has funded four



*ISU professor Robert Brown (right) shows some biorenewable oils that have been produced at BECON.*

mini-grant proposals for biobased businesses.

While meeting with the BWG, Imig heard presentations from Robert Brown about the Office of Biorenewables Programs (OBP), Keith Kutz of the Iowa Energy Center, and Jill Euken from the BioEconomy Working Group.

The visit also included a tour of the Iowa Energy Center's BECON facility. This facility is the home for many demonstrations and pro-

notes the development of the BioEconomy. Imig also had the opportunity to meet with a producer who is working on one of the VCPSA mini-grants.

"The purpose of the Foundation's Higher Education-Community Partnerships program is to show how we can use relationships between the university and people in the community to

get things done," Imig told the group at a closing luncheon. "And I tell you what, it's happening here."

For more details please visit the groups' Web site at [www.valuechains.org/bewg.html](http://www.valuechains.org/bewg.html).



*Keith Kutz (right) of the Iowa Energy Center explains simulations and tests performed at BECON.*

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## **BioEconomyUpdate**

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