

## **Iowa's BioEconomy is Becoming a Reality**

According to the recently released Battelle Report, Iowa's BioEconomy is not a long-term dream anymore; rather, it is becoming a reality, and it's a reality that Iowa State University is 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: <http://www.ciras.iastate.edu/bioindustry/>

The Battelle Memorial Institute selected technology development platforms that the state of Iowa should develop, focus and invest in to strengthen Iowa's economy. The BioEconomy was identified as one of those platforms which 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.

In the report, the BioEconomy is defined 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 stated criteria, the researchers found a \$5.1 billion market potential for lubricant sales. In terms of existing research strengths, Iowa State University was recognized as "central to the state's initiatives in the BioEconomy." The University is leading research in the BioEconomy with programs and organizations such 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.

Driving the BioEconomy forward in Iowa are 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. The Institute found and reported that Iowa State University has a structure in place for moving the research from (laboratory) bench 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. That impact would not only be increasing production, but also be creating new jobs, and providing investment opportunities for Iowans that have significant potential for wealth creation.

ISU Extension/CIRAS is identified as an integral part of building Iowa's BioEconomy. CIRAS at ISU is helping the USDA implement section 9002 of the 2002 Farm Security and Rural Investment Act. This initiative, the Federal Biobased Products Preferred Procurement Program (FB4P), was written to require federal agencies to purchase

biobased products when those products meet certain standards set by the U.S. Secretary of Agriculture.

Ronald Cox, director of CIRAS, Steve Winter and Steven Devlin are leading the partnership with the USDA to jump-start the FB4P. To get this program started, the USDA is gathering information about biobased products and companies. In response to the USDA's needs, 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. The CIRAS team is working with federal officials, manufacturers, other universities and private sector groups to accomplish those four tasks.

Jill Euken, Biobased Industrial Specialist with ISU Extension/CIRAS points out that the Battelle report challenges Iowa regents institutions to work out new relationships with biobased businesses that will benefit both. "How well and quickly we build new public/private relationships and partnerships may well determine whether Iowa does indeed "dominate in the commercialization of the BioEconomy platform."