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2005 Biobased Industry Outlook Conference

By Krysta Nibe, CIRAS BioEconomy Initiative

The growing bio-based economy in Iowa and around the nation is gaining attention from lawmakers, industry organizations, and researchers as well as the general public. In fact, the 2005 Biobased Industry Outlook Conference, held August 29–30 in Ames, Iowa, under the sponsorship of CIRAS and other organizations, attracted 150 more people than last year's conference. More than 400 attendees participated in discussions that expanded on topics from previous conferences and worked to further partnership and engagement opportunities in the growing bioeconomy.

"This is a very, very important topic for our country, certainly for Iowa and for Iowa State," said Iowa State University President Gregory Geoffroy in his welcoming remarks to conference participants. Geoffroy also highlighted the potential for the bioeconomy and encouraged private sector support for higher education to advance research and prepare students for the changing workplace.

Iowa Governor Tom Vilsack echoed Geoffroy's sentiments about the importance of biotechnology for Iowa and encouraged participants to look at new ideas for building the industry. He emphasized that Iowa is positioned at the forefront of the bioeconomy and the biotechnology industry with productive farmers, productive soil, and a strong university system.

A broader vision was presented by Congressman Tom Latham (R-Iowa), who offered five reasons to build the nation's bioeconomy, with a particular emphasis on the biorenewable fuels sector, including national security, the surplus of agricultural products, environmental concerns, the rising price of oil, and rural development. These reasons have been widely



Governor Tom Vilsack addresses participants at the 2005 Biobased Industry Outlook Conference. A record number 400 people attended.

recognized and discussed in Washington, D.C. In fact, according to Acting Assistant Secretary for Energy Efficiency and Renewable Energy Doug Faulkner, the U.S. Department of Energy strongly supports research into alternative sources of energy.

Building a bioeconomy to lessen the country's dependence on foreign oil may also help reduce gas prices and increase economic development in agricultural areas. Author and journalist Paul Roberts emphasized that, with current oil shortages and escalating prices, the move to a bioeconomy needs to be made soon. He offered some suggestions to curb the problem of high energy prices, such as boosting natural gas supplies, implementing a "carbon penalty" in the form of a carbon trading system, and launching a drive to reduce consumption of oil and energy.

However, the move to a bioeconomy cannot happen without changing the way the country produces agricultural crops. Dartmouth College Professor Lee Lynd believes that replacing fossil fuel-based products with biorenewable fuels and other bio-based products will not be an easy task. He stressed

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CIRAS Mission Statement

The mission of CIRAS is to enhance the performance of Iowa industry through education and technology-based services.

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The Center for Industrial Research and Service (CIRAS) provides education, research, and technical assistance to Iowa industry through partnerships with Iowa's universities and community colleges, government agencies, and professional associations. Assistance is supported in part by the DoC/NIST Manufacturing Extension Partnership, the DoD Procurement Technical Assistance Program, and the DoC/EDA University Center Program.

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Market positioning

By Robin Habeger, Business and Industry Relations, College of Business

The thought of evaluating where you stand in your market or determining what strategy to take to introduce a new product can be overwhelming. Most manufacturers understand the value of the exercise, but many lack the in-house expertise or time to undertake it. For them, the answer may be tapping into the resources of the College of Business at Iowa State University.

A central Iowa manufacturer recently asked one of our marketing professors to review the company's current market position, study its competitors, and understand what customers wanted from its products. The information from this project was then used to help the company develop a marketing plan focused on a growth strategy and assist them in introducing a new product.



Dr. Kay Palan works with students and companies through the Iowa State College of Business's Business and Industry Relations Program. The College of Business is helping Iowa manufacturers compete at a global level. It's a competitive world.

The first step in the project was to assess the company's current market position. Interviewing dealers familiar with the company's current products and marketing practices as well as competitive products and marketing practices accomplished this task. Questions were formulated to encourage in-depth responses, thus giving the manufacturer specific details to address. The most responsive and helpful dealers were contacted throughout the process for additional input.

Secondary data, including competitors' printed materials, Web sites, and point-of-purchase materials, were examined for ease of use and general appeal. The materials were then compared to materials offered by the company that initiated the project. Based on

the information obtained, the company was advised to create a new brand identity and position for both existing and new products.

Research concluded that, based on customers' wants and competitive factors, the new position should focus on communicating quality at reasonable prices. To that end, suggestions were made for product improvement, such as more options for the consumer, improvement on finish details of the product, and better product warranty. Suggestions for a new brand name and logo were also made; potential names, colors that should be used, and even language that would be helpful in conveying the appropriate feel for the products were offered.

Photos of consumers using the products were suggested to enhance promotional materials. The use of fonts and catalog layout were also discussed.

Finally, the company was advised to develop a much stronger relationship with their dealers and sales representatives, the lifeblood of their sales operation. It was observed that an inclusive annual meeting with critical stakeholders would help the company collect crucial information to aid in new product roll-out or to implement any contingency plans for unforeseen problems. An annual meeting would also provide an opportunity to use casual conversation to informally collect data on how products are perceived in the marketplace.

To help the organization support this new position, a communications tactical plan that included details for point-of-purchase displays, brochures, Web site, and signage was also provided. The plan gave individuals responsibility for ensuring that steps were made to complete each initiative in a timely fashion. Contingency planning was also completed for those times when a particular tactic did not have the desired results.

When the project was completed, materials and the final document were presented by the faculty member to company executives. Based on the recommendations made, the company has released a new brand name, modified promotional materials, and begun Web site design updates, all of which are helping the company compete more effectively.

For more information on the Business and Industry Relations Program, contact Robin Habeger at 515-294-6611; rhabeger@iastate.edu, or visit the Web at www.bus.iastate.edu/bpdl/.

ISU College of Business

The Business and Industry Relations Program can provide your business with the expertise, training, and services needed to succeed in today's fast-paced economy.

Whether you need a feasibility study, technology solutions, sales force training, strategic planning, or market research, our faculty experts can assist you with projects that will positively affect your bottom line. We provide assistance in business development to supply chain management. No matter the size of your organization, we have the expertise you need.

CIRAS connects family foods business to expertise and resources

By Mary Jo Glanville, Engineering Communications and Marketing

Bill Korleski knows his goal. The 60-year-old owner and founder of Mary Ann's Specialty Foods, Inc., in Webster City, Iowa, wants to keep the family business growing.

Sounds simple enough, but growing an Iowa food company in the 21st century requires the ability to address many obstacles, not the least of which is complying with a wide range of evolving state and federal regulations. Korleski certainly doesn't lack experience; after all, he has survived the highs and lows of business ownership since buying a state meat locker/grocery store/beauty salon in Klemme, Iowa, at age 20.

In the 40 years since that first purchase, Korleski has focused his efforts on the meat processing business. Mary Ann's Specialty Foods has gained a wide reputation for high-quality, USDA-certified products that include its own Kor-Bert line as well as a host of other pork, beef, chicken, and turkey products processed for other labels. But running a food-processing business with 100-plus employees and the capacity to handle over half a million pounds of product a week is a complex endeavor. And, for medium-size operations like Mary Ann's, there's neither the time nor the on-site expertise to explore options for dealing with all of the issues.

Fortuitously, last spring as Korleski considered plant renovation and options for wastewater treatment concerns, CIRAS notified county extension education directors (CEED) that food companies had become a new area of focus and requested input on those that might want assistance. David Brown, Hamilton County CEED, put Derek Thompson, CIRAS account manager, in contact with Korleski.

"We have a grocery list of all the resources available to manufacturers," explains Thompson. "I asked Bill leading questions: What are your biggest challenges? What issues do you need to address immediately? What are the long-term goals for your company? From his responses, we started figuring out which of our resources would help."

Issues that surfaced included problems with waste treatment, questions about plant renovations that would meet stringent food safety regulations, and communication concerns related to having a largely Hispanic workforce. To address these challenges, Thompson drew on resources available through CIRAS and Iowa State, building a team that included Brenda Martin, community college account manager located at Iowa Central Community College (ICCC); Sam Beattie, assistant professor, food science and human nutrition at Iowa State; and Carolyn Cochran, director, economic development programs at ICC.



Pictured from left to right are Brenda Martin (ICCC), Bill Korleski, Mary Benda, and Patt Ridder. Bill and Mary are holding Mary Ann's Specialty Foods' signature hams.

One critical area of concern is the discharge of fat, oil, and grease into the sewage system. "A lot of food plants have problems in this area," says Martin. "To protect the environment, the Environmental Protection Agency and Department of Natural Resources continue to raise the bar on what plants can discharge. It's a costly problem to solve."

Martin brought in staff from the University of Northern Iowa Waste Reduction Center (IWRC) to apply their expertise to the problem. The IWRC recently purchased a small-scale version of equipment to try in plants like Mary Ann's. "We're able to actually test the system to determine whether it can do what we need it to do before Bill actually buys a full-scale version to install in his plant," Martin says.

With his business growing 25 to 30% a year, Korleski also wanted to improve his current facilities. He purchased the Webster City facility in 1992 and opened it as Mary Ann's Specialty Foods, Inc., in 1993. "It was old then," says Thompson. "Bill wants to continue to expand his customer base, so it's important to make a good impression by updating it with things like fresh paint and covering exposed pipes."

Because food facilities have unique requirements relative to materials and installation practices, Beattie and Martin searched out all the rules and regulations that needed to be followed. They also compiled a list of Midwest contractors who are aware of the special requirements for food plants. Even though there are some 1,500 food companies in Iowa (including facilities that create products for humans and animals), Martin says locating the contractors that have experience in food plant renovation was challenging.

Beattie, with his expertise in food safety, also provided insight on specific types of questions. For example, Korleski wanted to install a false ceiling to cover pipes and prevent condensate from dripping. Beattie explained that the space between the original ceiling and the false ceiling

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CIRAS connects family foods business

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would need to be air conditioned to prevent the growth of pathogens and mold.

To ease the communication challenges that come with having a largely Hispanic workforce, Thompson told Korleski about training funds available through the Iowa Department of Economic Development and the ICCC workforce training program.

“This is a forgivable loan program to offset the cost of training current employees,” adds Cochran. “If a company trains the number of people they say they’re going to train within the time they say they’ll do it, they don’t have to pay it back.” To be eligible for such a program, a company needs to be engaged in manufacturing, processing, assembling products, warehousing, wholesaling, or conducting research and development.

As a food processing plant, Mary Ann’s meets the criteria. Cochran is in the process of writing the training plan that will specify the number of people who will be involved. English as a second language (ESL) will be one component of the plan with other parts yet to be worked out, according to Cochran. ESL classes will begin in February.

Ann Waynar, Region V adult basic education, GED, and ESL coordinator, will coordinate the classes.

For Korleski, these are just some of the highlights of how CIRAS has helped him. “Running a business like this is a challenge. Recordkeeping and paper have become overwhelming with all the new issues related to homeland security. I have key people working with me—my son Kelly is marketing director and my sister Patt is plant manager. We keep our heads above water, but the people from CIRAS are my legs,” he says. “They run down some of this stuff that we don’t know exactly where to look.”

Consumers around the country want Korleski to achieve his goal. While competing with the likes of Hormel, Armour, and Swift, Mary Ann’s Specialty Foods also provides a unique service processing the free-range pork for Niman Ranch, Inc. Korleski proudly notes that his no-nitrate bacon was the number one new product at the Fancy Food Show in New York last summer.

With the assistance of CIRAS, the future for Mary Ann’s Specialty Foods, Inc., looks bright. It’s a good thing, too. Korleski plans to do this job he loves for another 20 years.

For more information please contact Derek Thompson at 515-419-2163; thompson@iastate.edu.

2005 Biobased Industry

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the importance of crop rotation and the introduction of new crops in order for the biomass to sustain a bioeconomy. “I believe we could rapidly develop cost-competitive, efficient conversion technology,” Lynd said.

Smaller breakout sessions during the 2005 conference took the larger ideas presented earlier in the day and examined them in many different ways. Sessions held to discuss the potential for bio-based products emphasized the need for manufacturers to market their products to the government as well as to the public. Speakers in the biorefineries session highlighted the need for producers and small businesses to partner with larger corporations such as DuPont, Cargill, and BP America.

In addition to discussing the notion of moving to a bioeconomy on a large scale, participants met and talked about small business opportunities and partnerships in a variety of areas. These sessions focused on feedstocks for the bioeconomy, including crop oils, residues, dedicated energy crops, natural fibers, and manure. A special panel also spoke about the conservation and ecological concerns of a bioeconomy. “Each breakout session featured outstanding speakers who really encouraged attendees to take a closer look at the opportunities within the bioeconomy,” said conference chair Jill Euken.

While much of the conference was geared toward industrial applications and opportunities within a bioeconomy, participants had opportunities to learn about new research in the area of biorenewable resources. Two breakout sessions focused on the research of scientists affiliated with the Iowa Biotechnology Byproducts Consortium and the Iowa State University Center for Catalysis. Researchers from Iowa State and the University of Iowa also presented posters and discussed their work in a one-on-one setting during the conference reception held the first evening.

According to the feedback of conference attendees and sponsors, the 2005 Biobased Industry Outlook Conference provided opportunities to network, learn about partnerships, and increase interest in the bioeconomy in Iowa and nationwide. “We are very pleased with the turnout for this conference and the overwhelmingly positive feedback,” Euken said. “The planning committee feels that we achieved our goals and provided a conference from which attendees could take home vital information and apply it in their communities.”

For more information on the conference, please contact Jill Euken at 712-769-2600; jeuken@iastate.edu. Presentations from the speakers as well as information regarding the conference are available online at www.valuechains.org/bewg/Conf2005.

Targeting research for southeast Iowa

By Dave Swenson, Department of Economics, Iowa State University

Southeastern Iowa counties bordering the Mississippi River were the first areas in the state to be settled in the 1800s. Access to the river provided natural resources and other competitive advantages, leading to strong and vibrant communities. This region still boasts key transportation hubs that move massive amounts of grain and other important commodities into and out of river ports, and it hosts much of the state's manufacturing capacity. The region, however, has been going through some hard times of late.

The combined populations of Muscatine, Louisa, Des Moines, Henry, and Lee counties grew at less than one-third the rate of the state of Iowa during the 1990 to 2000 period, and Des Moines, Henry, and Lee have since posted declines. Between 1998 and 2002, a period of economic stress for the entire nation, the region lost 20 of its manufacturing firms and saw total employment decline by over four percent. Even though state and national economies are now growing, the rate of employment growth in this region has lagged behind the rest of the state. The area continues to lose valuable manufacturing jobs, and its unemployment rates are a point or more higher than the state average.

The Center for Industrial Research and Service (CIRAS) is a U.S. Economic Development Agency (EDA) University Center. In that capacity, CIRAS partnered with the Department of Economics at Iowa State University to develop and deploy research and technical services to assist Iowa's economically distressed regions. Scarce state or federal assistance for economic development initiatives has led to more and more region-based planning and programming as opposed to localized economic development assistance. Southeast Iowa was the first region chosen for study.

A meeting to introduce Iowa State representatives and the proposed project was hosted by the Southeast Iowa Regional Planning Commission in Burlington, Iowa, in January 2005 and attended by economic development professionals from the study counties, Southeastern Community College, and researchers from Southwest Illinois State University. That meeting allowed Iowa State project staff to hear firsthand from the attendees their perspectives on their region, their expectations for service, and their concerns about the future—a process that provided valuable information and insights into designing the research for southeast Iowa.

After the organizing meeting, the project team returned to Iowa State where, utilizing research and modeling resources in the Department of Economics, the region's industrial structure was assessed in detail. In particular, after producing background research on the region's demographic, labor, and industrial trends and conditions, the researchers created

sets of descriptive indices to identify the overall industrial strengths of the area. In particular they identified four important industrial groupings for key industries: (1) those that were competitive and demonstrating growth; (2) those that were stable; (3) those that were important but were in decline; and (4) minor industries that appeared to be emerging in importance to the region.

The researchers also created an evaluation matrix for each of the industrial classification groups to assist developers in understanding both objectively and subjectively the value of these industries. Industries were rated on their wage value, overall benefits, national growth potential, average size, worker education, and relationships with the rest of the regional economy. Additional screening criteria were applied to determine whether the region had any potential industrial "clusters." Industrial clusters exist where there is a minimum number of a certain type of business, substantial supplier relationships in the local economy, and the assumption that there are reasons for regional specialization in some kind of production.

Additional analysis isolated the top commodities by value that were imported into the region and determined whether there was sufficient demand for

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In addition to providing technical assistance to Iowa's rural manufacturers, the Economic Development Administration's University Center program, located in the Center for Industrial Research and Service at Iowa State University, is continuing work in southern Iowa on a detailed assessment of regional economies. The next regional economic study will include the following six counties: Clarke, Union, Adams, Taylor, Ringgold, and Decatur.

This research, which will identify regional industrial strengths, will provide useful, contemporary, and sophisticated data analysis in support of regional economic development strategic planning. This research is not, in detail and scope, offered by any other public service agency in the state. The study is being coordinated through the Southern Iowa Council of Governments. For more information contact Mark Reinig, Economic Development Program Manager, Iowa State University College of Engineering, at 515 294-7883.

Iowa Manufacturing Extension Partnership integrates with CIRAS

By Ronald Cox, CIRAS

From 2000 to 2003, the U.S. experienced the largest drop in manufacturing employment since the end of World War II. In Iowa alone, 12% of manufacturing jobs were lost in this three-year period. Clearly the world economy is in transition, and just as clearly Iowa State University must make changes to provide timely assistance to the citizens of Iowa.

One of the strategic changes made within Iowa State Extension has been the integration of programs that provide assistance to the state's 5,000 manufacturing firms. The Engineering Extension Service and the Iowa Procurement Technical Assistance Center have been integrated with CIRAS over the past few years. CIRAS has now assumed responsibility for managing the NIST Manufacturing Extension Partnership program in Iowa.

The Manufacturing Extension Partnership (MEP) is a nationwide network of resources to help manufacturers compete in a global environment. MEP programs in all 50 states help companies access training on management practices and productivity improvement techniques, link to technologies for product and process improvement, and develop greater supply chain integration. Since 1994, Iowa State Extension has operated the MEP program. CIRAS has been providing similar services to manufacturers since 1963, so the merger is a natural fit.

The merger will result in a number of benefits that manufacturers will see immediately, including greater coordination among programs, a simplified process for connecting to these various resources, reduction in staff turnover, and administrative savings that will be redirected toward services to manufacturers. This new

structure will allow a level of coordination between separate federal programs that very few states have the opportunity to achieve.

Five CIRAS account managers serve as points of contact as well as help assess problems, locate resources, evaluate project ROI, and gauge client satisfaction. The account managers and their territories are displayed on the map and can be found on the new CIRAS Web page—www.ciras.iastate.edu.

The account managers have access to service providers within Iowa State as well as the many CIRAS partners, private consultants, and national laboratories. Iowa State resources include the Institute for Physical Research and Technology, College of Engineering, College of Business, College of Agriculture, Engineering Distance Education, and Small Business Development Center. Resources are also available from Iowa's 15 community colleges, the Department of Commerce Export Trade Assistance Center, the University of Northern Iowa, and the Technology Association of Iowa.

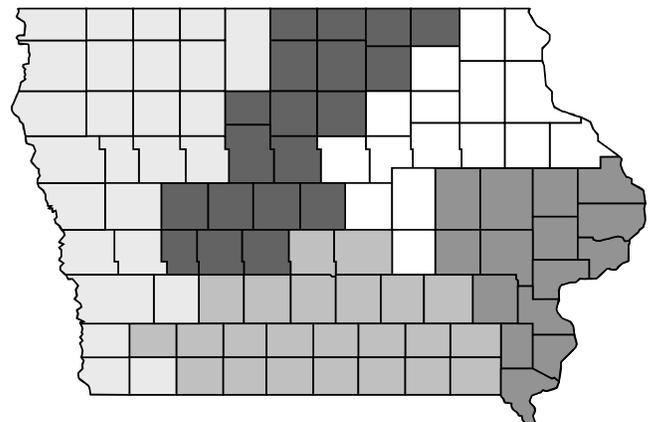
The MEP Governance Board and CIRAS Advisory Council members have been integrated as well. The new council includes 15 manufacturers from across the state, a representative community college president, the director of the Iowa Department of Economic Development, and the executive directors of the Association of Business and Industry and the Iowa Business Council.

For more information please contact Ron Cox at 515-294-9592; rcox@iastate.edu.

New account territories

Account managers provide initial manufacturing needs assessments and also explore and match resources to client needs. The state of Iowa has been divided into five account managers' territories. Currently CIRAS has four account managers covering the five territories. Their contact information follows.

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Is it feasible—What everyone wants to know about a new business venture

By Rudy Pruszko, CIRAS

CIRAS has long offered feasibility studies to help clients understand the risks and rewards of entering a new business or expanding an existing one. Two types of studies are offered. Although the generic term “feasibility study” is often used to describe both, one is actually a pre-feasibility study.

The standard feasibility study evaluates five distinct areas: management, finances, technology, economic impact, and marketing. A CIRAS representative reviews current and historical information on the company's overall operation and the new venture they are considering. The main document reviewed in this study is the business plan, which is evaluated for its completeness, accuracy, financial projections, marketing and sales plan, how well the company has researched the new venture or business they want to enter, and how well they have addressed the issues that affect success. This review process is of particular importance to the management and investors in the company or new business venture.

A CIRAS feasibility study is really a third party, independent review of the company's current status and their plans to move forward. Management can use the information presented in the report to improve any weaknesses or take advantage of opportunities in its operations. A secondary use of a feasibility study by the client is to solicit financial assistance from lending institutions or secure a loan guarantee, like those offered by the USDA. As a respected source of business knowledge and expertise, CIRAS has earned a reputation for preparing complete and accurate feasibility studies that clients, investors, and lenders can use with confidence to evaluate the company's business plan.

The second type of feasibility study, which is more accurately called a pre-feasibility study, is conducted for the client who wants to know if his or her business idea is worth pursuing. For the pre-feasibility study, the information that is needed to write the business plan, including the opportunities and risks associated with the proposed venture, is gathered and brought to the company's attention. When the study is completed, the company will have most of the information it needs to write the business plan and the necessary data to make informed decisions on how to proceed.

In early 2004, as interest grew in the emerging biodiesel industry, many cooperatives and manufacturers of soybean oil began considering the possibility of entering the industry as a producer. MaxYield Cooperative, already selling biodiesel blends to the public and its members, decided to have a biodiesel feasibility study conducted, based on economic development research. They solicited the help from CIRAS Industrial Specialists Rudy Pruszko

and Steve Vanderlinden. The study addressed five critical areas: (1) status of the biodiesel industry; (2) market potential; (3) production and technology issues; (4) management strategies; and (5) financial analysis and sensitivity.

With the completed feasibility study, MaxYield Cooperative had enough information on the economic impact, financial analysis, construction cost, and operating cost of a biodiesel plant to approach its board of directors about the project. Investment strategies and next-step plans are being considered.

MaxYield Cooperative, a 3,502-member farmer cooperative covering a 12-county area in northwest Iowa, is located in West Bend. MaxYield Cooperative lead individuals included Joe Anniss, general manager, and Creighton Nelson, area leader.

The feasibility study for MaxYield was selected as a University Economic Development Association annual award for Excellence in Economic Development Research.

For more information on feasibility studies, contact Rudy Pruszko at rpruszko@iastate.edu; 563-557-8271 ext 251. ■

CIRAS wins UEDA award

CIRAS was honored with a national award at the recent University Economic Development Association (UEDA) conference in Monterey, California. A UEDA award for Excellence in Economic Development Research was presented to CIRAS Industrial Specialists Rudy Pruszko and Steve Vanderlinden for their work on a feasibility study for MaxYield Cooperative, West Bend, Iowa. The study evaluated the viability of a plan for MaxYield to build and operate a new biodiesel production plant.

UEDA is a not-for-profit association that serves the nation's institutions of higher education and their economic development affiliates. UEDA provides advocacy, information, and a forum to enhance the performance of organizations providing business, economic development, and technical assistance to businesses and communities. The group annually recognizes projects in six areas: business development, workforce development, technology commercialization, community development, partnership development, and economic development research. For more information on UEDA's mission and scope, visit their Web site at www.universityeda.org.

Iowa manufacturers' survey

By Steven Winter, CIRAS

Iowa has over 5,000 manufacturing facilities. These facilities generated almost 21% of the gross state product (GSP) in 2004, contributing \$22.8 billion to Iowa's GSP, thus making this the largest economic sector in the state. In comparison, that same year Iowa's agriculture sector directly contributed just 3.4% of the GSP. As a percent of all U.S. manufacturing jobs, Iowa's share has risen annually since 1986, the only major industrial sector to do so.

Recognizing the value of manufacturing to our state, CIRAS will be assessing programs to make manufacturers more competitive in today's global market. Starting in early 2006, manufacturers statewide will be asked to complete a survey conducted by CIRAS. Survey results will be used to gauge the current and prospective health of manufacturers, their use of new technologies and practices, and how state assistance programs might be improved to better meet the needs of the industry. This aggregate view will help to benchmark manufacturing performance by identifying the challenges facing Iowa manufacturers so that CIRAS and other state organizations can enhance their offerings to industry.

How Will This Survey Differ from Others?

Previous surveys conducted by CIRAS were directed toward understanding the short-term economic factors facing manufacturers. In contrast, this survey will focus

on the problems/needs, operational performance, current and planned use of new technology, and trends in product, process, and organizational innovation.

The survey will examine a manufacturer's current and future needs as well as performance trends. It will focus on key elements such as product and process innovation, information technology, manufacturing productivity and performance, and workforce training. CIRAS, as well as state and local economic developers, policy makers, and other business assistance providers, will use the survey results to assist Iowa manufacturers by aligning assistance offerings with the specific needs identified by participants.

How Will the Survey Be Distributed?

The survey will be mailed to Iowa manufacturers with five or more employees. Using this criterion, approximately 4,000 manufacturers will receive the mailing. A self-addressed, postage-paid envelope will be included for its return. A unique code number will also be provided to

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Targeting research

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those commodities to warrant the development of firms to produce them. Next the analysis isolated all of the import demand from the metropolitan regions closest to southeast Iowa. That process yielded potential commodity export opportunities, which were linked with the existing southeast Iowa industrial capacity to identify potential regional sales opportunities.

Among the study's findings:

- The Southeast Iowa region needs to attract and retain younger, more highly educated workers.
- Southeast Iowa has lower outcommuting rates and higher incommuting rates than the state average, which makes it an attractive region for work.
- The major industrial sector in the region is manufacturing, accounting for 54 percent of industrial output (or sales), 23 percent of jobs, and 34 percent of payments to workers.
- Regionally competitive industries include animal slaughtering and processing; steel production and fabrication; agricultural chemical, fertilizer, and rubber products; office furniture; and HVAC equipment.

- Emerging industries include office administrative and employment services, electrical power generation, plastic products, printing, and computer system design and related services.

A final report and presentations were made in the spring and summer to the initial economic development participants and elected representatives from their respective communities. The southeast Iowa participants have incorporated the research into both their regional and local strategic planning processes, used the material to develop their marketing plans, and begun to identify and prioritize their industrial targeting activities.

Nearly five months after the final report was issued, Iowa State staff are still fielding calls for additional research or for advice on how local economic development planners might further incorporate the research findings into their local and regional development plans. Beginning in January, this regional research process will be replicated for seven counties in southern Iowa and, later in the spring, in southwestern Iowa.

The complete report can be viewed at <http://www.ciras.iastate.edu/publications/TIGOIinSEIowa.pdf>, for more information please contact Dave Swenson, 515-294-7458; dswenson@iastate.edu.

WEEE and RoHS—European directives on electrical and electronic equipment

By Allen Patch, Commercial Service U.S. Department of Commerce

With 25 countries and 450 million people, the European Union represents a significant market opportunity for U.S. manufacturers. Understanding and complying with European product regulations is critical to tapping this market. Companies that address European directives and standards early in the design and production process will be well positioned to take advantage of market opportunities both in direct international sales and indirect supply to U.S.-based companies who, in turn, sell to Europe. Fortunately, detailed information and guidance on standards is available to all U.S. companies through the Commercial Service of the U.S. Department of Commerce and its standards office at the European Union Headquarters in Brussels.

Two new environmental directives for electrical and electronic equipment are important for Iowa firms, Waste Electrical and Electronic Equipment (WEEE) and the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

Directive 2002/96/EC on Waste Electrical and Electronic Equipment was moved to implementation in August 2005. The WEEE directive was created to reduce the amount of consumer electrical product waste, limit any negative effects of such waste on the environment, and promote recycling. There are 10 product categories covered under WEEE, including large household appliances, radios, TVs, toys, and more.

The WEEE directive requires manufacturers or “producers” to register the product, ensure that products are correctly labeled, ensure that collection facilities are in place for recycling, and pay their share of recycling costs. This directive

attempts to complement many of the take-back systems already in place across the member states. As a directive issued by the European Commission, it only outlines objectives. Actual implementation varies from country to country across the European Union.

A related directive, 2002/95/EC, pertains to the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment. This directive severely limits the use of hazardous heavy metals such as lead, mercury, cadmium, hexavalent chromium, and brominated flame-retardant PBBs and PBDEs, starting July 1, 2006. The directive, which sets maximum concentration values and includes some exemptions, touches directly on materials used in the soldering of components and much more.

*For further information on regulatory compliance, contact:
Iowa Export Assistance Center of the U.S. Department of Commerce
515-288-8614*

Manufacturers who wish to market their products in the European Union should visit the Commercial Service Web site of the U.S. Department of Commerce mission to the EU to review the section on standards and regulations. WEEE/RoHS are not the only directives that manufacturers must meet. A thorough understanding of which directives apply to your product is a good first start in developing sound compliance and successful marketing across the EU.

www.buyusa.gov/europeanunion

An entire section of the U.S. Department of Commerce Web site consists of a library of information on WEEE/RoHS.

www.buyusa.gov/europeanunion/weee.html

The following European Commission Web site provides in-depth information on WEEE/RoHS and provides links to the actual directives.

http://europa.eu.int/comm/environment/waste/weee_index.htm

Iowa manufacturers' survey

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each recipient for access to a Worldwide Web address to complete the survey electronically if desired. In addition, any manufacturer with fewer than five employees is invited to participate in the survey by contacting the CIRAS office for access via the electronic submission process.

What Is the Confidentiality and Privacy Policy?

All specific company information provided by manufacturers will be kept strictly confidential. Publications and reports will be presented in

aggregated form only. Names of participating companies will not be released, and individual company information will not be distributed outside of the data collection process.

What Are the Deliverables?

An executive summary and final report will be prepared and posted for public access on the CIRAS Web site. A summary report will be presented in an issue of the CIRAS newsletter, which is mailed to economic developers and manufacturers statewide. In addition, customized benchmark ranking will be available to all survey participants.

*For more information, please contact Steven Winter at
515-291-2585; sjwinter@iastate.edu*

RFID mandate poses questions for Iowa manufacturers

By Mary Jo Glanville, Engineering Communications and Marketing

Iowa manufacturers are among the thousands of companies nationwide that sell supplies to the U.S. government. To facilitate tracking the millions of products in its supply chain, the government has been gradually implementing radio frequency identification or RFID technology. Until recently, the use of RFID tags had been optional for government contractors. On January 1, 2006, a new law went into effect requiring all new contracts to mandate RFID tagging on products sold to the government.

CIRAS assists Iowa companies in understanding the basics of RFID technology and provides information to help them determine the best way to comply with the law.

RFID technology consists of a tag that contains data about the item to which it is attached. A handheld reader or a fixed device, such as a warehouse portal, reads the data on the tag as the container or pallets pass by. "It is similar to the bar codes we see on everything we buy," explains Sharmon Norris, CIRAS Industrial Specialist.

While RFID is more sophisticated and has the capability to transmit more information than bar codes, it does not include details that would compromise intellectual property. The technology enables manufacturers and the government to easily track supplies from the point of departure through the distribution centers and at its final destination.

Companies have flexibility in the type of RFID tags they choose. Passive tags are the easiest and least costly to implement. They can be mass produced and simply state the manufacturer's name and where the product is going. Data can be reflected back to readers within a 20-foot range.

Active tags have an onboard power source that enables them to send a stronger signal back to the reader. The range is up to 300 feet. These tags can be programmed to receive, store, and transmit information such as serial numbers and place of assembly.

Although companies with on-going government contracts are not mandated to comply, there are benefits to embracing the technology, according to Norris. "It has the potential to save money. Using it for inventory control and labor control can help to ensure that a company does not overstock and that work is scheduled efficiently," she explains. "In addition, RFID will feed directly into the government's electronic accounting system, Wide Area Work Flow. As soon as a shipment goes out, the defense center receives an advance notice. When

the shipment arrives, the notice is switched over to a payable so the manufacturer gets paid much faster."

Companies need to analyze their unique situations to determine how to best comply with the law and whether it would benefit them to embrace RFID technology at a high level. Norris and Steve Vanderlinden, also a CIRAS Industrial Specialist, have been presenting overviews of RFID to manufacturers.

For more information on RFID or how CIRAS can help your company, please contact Sharmon Norris at 515-294-5240; sharmon@iastate.edu, or Steve Vanderlinden at 800-458-4465 or 563-336-3318; stevev@iastate.edu. ■

New staffer takes on new position



Ruth Wilcox started something new on November 21, 2005. That was her first day on the job as a CIRAS account manager for Iowa's northeast region. It's not just Wilcox who is new, though. The position, dedicated solely to connecting manufacturers in the northeast region with needed resources, is also new.

Wilcox, who holds BS and MS degrees in agricultural engineering from the University of Kentucky, brings 20 years of professional experience in engineering and management of people and projects to the CIRAS position. During her career, she has worked for a bridge construction company, mechanical and electrical engineering consulting firms, and manufacturing firms.

Most recently, Wilcox was employed by Monogram Systems, a global leader in vacuum technology used for waste disposal in aircraft, trains, and ships. In her role as a program manager, she managed and coordinated communication and program activities between personnel at Boeing and Monogram offices in Rockford, Illinois, and Carson, California, for Boeing's newest aircraft.

CIRAS' ties to the community colleges and resources at Iowa State University made the new position particularly appealing to Wilcox. "Education is a key to helping people accept change," she explains. "In this age, if you're not changing, you're not growing."

Wilcox views her new role as an opportunity to assist individual manufacturers in anticipating what changes they may face. "We connect manufacturers to resources that could help them solve specific problems as well as help them assess what they must do in order to stay competitive and grow in an increasingly global marketplace," she says. "By creating and retaining jobs in manufacturing, we contribute to the economic development of Iowa."

Ruth Wilcox can be contacted at 515-290-1134 or rwilcox@iastate.edu.

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WebWatch: CIRAS is just a click away

The CIRAS Web site is now a quick and easy way for Iowa manufacturers and companies to access technical services and keep informed about the latest in manufacturing practices and trends. The site features industry statistics, case studies, and in-depth information that can help Iowa companies increase productivity and enhance customer and employee satisfaction.

Visit the Web site at www.ciras.iastate.edu to see what CIRAS and our partners can do for you!

Focus: CIRAS Web site

www.ciras.iastate.edu

The screenshot shows the CIRAS website homepage. At the top, it features the Iowa State University logo and navigation links for Staff, Contact Us, and Advanced Search. The main heading is "Center for Industrial Research and Service (CIRAS)". Below this is a navigation menu with categories like Industry Services, About CIRAS, and Library. A central map of Iowa is highlighted with a grid, and text explains how to use it to find regional Account Managers. On the right, there are sections for "Sign up for CIRAS News or update my subscription" and "Sign-Ons" with links to various programs. The footer contains contact information and a disclaimer.

CIRAS News is published quarterly by the Center for Industrial Research and Service and edited by the CIRAS publications team. Design and production is by Engineering Communications and Marketing, Iowa State University. Contact John Van Engelenhoven at 515-294-4475 or jve@iastate.edu with questions and comments regarding the newsletter.

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