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CIRAS gathers crucial data to reveal ongoing challenges for Iowa industries

By Ron Cox, CIRAS, and Eric Dieterle, Engineering Communications and Marketing

Even before the storms had begun to subside, CIRAS staff began a survey of Iowa manufacturers to learn more about the extent and effects of damage from the tornados and floods that ravaged the state throughout the spring. The intent of the survey was to act as a collective voice for Iowa industry both by beginning to identify industry obstacles to exceeding pre-disaster production levels and by conveying industry needs to local, state, and federal agencies, organizations, and people providing support and services.



Flood damage disrupted transportation over a wide area of Iowa.

What CIRAS found was that depleted workforces, lost revenues, and a lack of basic resources were just some of the challenges facing Iowa manufacturers as they began to recover from the disasters of 2008.

CIRAS director Ron Cox was responsible for analyzing the survey data. "Compiling accurate data is crucial," Cox points out, "because millions of dollars of relief funding is being made available from multiple sources. CIRAS, by collaboratively gathering the data and acting as a collective voice for industry, can help those funding sources understand how relief funding can best be targeted for industry recovery."

Manufacturing plays a significant role in the Iowa economy. In 2007, 229,400 Iowa manufacturing employees added 26.1 billion dollars to the nation's gross domestic product. This amounted to 20.2% of the Iowa economy. Of all non-farm jobs, 15.1% were in the manufacturing sector. Iowa manufacturers provided \$11.1 billion in wages and salaries to their employees—19.4% of

all wage and salary disbursements in the state. Industry had export sales of \$8.7 billion in 2007, which was nearly double the level of exports in 2002. Manufacturers accounted for 91% of all Iowa exports.

Although there are more than 6,000 manufacturing companies in the state of Iowa with a workforce of 230,000, the survey was directed at 1,400 manufacturers located in zip codes that had been reported by Iowa media to have been flooded or hit by tornados. The companies in these zip codes have a total of 56,000 employees.

The survey, which connected with 841 manufacturers, showed that 50 percent reported being directly or indirectly affected by the floods. For every one company directly impacted by the floods, two companies reported being indirectly impacted. The effects ranged from disruption in workforce as employees respond to flood-caused personal issues, to

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CIRAS Mission Statement

Improve the quality of life in Iowa by enhancing the performance of industry through research, education, and technology-based services.

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Standing in this line brings revenue to Iowa businesses

By Dave Bogaczyk, CIRAS

Sometimes standing in line has its rewards. That's why business owners attending the sold-out 2008 Iowa Procurement Expo didn't mind the wait to connect with prime government contractors and government procurement officials.

CIRAS organized the event to accomplish three goals: (1) to provide business development opportunities for Iowa companies from all industries to make connections with government buyers; (2) to learn how one federal buyer, the Iowa National Guard, conducts its procurement activities; and (3) to provide a venue for their clients to discuss the pursuit of opportunities with each other in the government sector. Not only did small businesses benefit from this format, but several large businesses in attendance used the afternoon to interview small businesses as potential suppliers or teaming partners. The half-day event was held July 10 in Des Moines.

To put CIRAS clients in the best position to succeed in the government sales arena, CIRAS Procurement Assistance works year round with companies to develop customized business development plans, including how best to develop relationships with government buyers and contractors. Prior to the Expo, a free workshop was offered on how to create a "capabilities statement" marketing piece to be used for targeting individual government agencies. "As part of our mission, we help clients deliver their value proposition to government buyers in a way that will increase their government contract capture rate," according to Dave Bogaczyk, CIRAS procurement program manager. Procurement Expo attendees who developed and used their own capabilities statements reported very favorable feedback from government buyers and even posted this marketing piece on their Web sites.

Approximately 200 people registered for the event with participants from over six states. The quality of the 30 exhibitors contributed to the "phenomenal" interest, says Bogaczyk, the expo organizer. The exhibitors included the U.S. Army Corps of Engineers, the Iowa Department of Transportation, the Iowa National Guard, Rockwell Collins, and the U.S. General Services Administration (GSA).



More than 200 participants from at least six states attended the 2008 Iowa Procurement Expo.

"This enabled us to connect names with faces and show what we can bring to the table," says Malcolm Goodwin, president of Promise IT Solutions and Global Search. "It was well worth the time." Goodwin expects his contacts at the conference will result in increased revenues for his two young companies.

The line for engineering giant Rockwell Collins "started at 20 and never really ended," Bogaczyk says.

This isn't the first time that GSA has had a booth at a CIRAS event. "I've gone for years," says Ruby Rice, business specialist from the U.S. GSA's regional office in Kansas City and exhibitor at the conference. "Each year it just keeps getting better and better. CIRAS is outstanding in their efforts to reach small businesses. When CIRAS calls, I drop what I'm doing and I get on the road."

Goodwin believes attendance at CIRAS purchasing expos is crucial for minority-owned businesses such as his own. The minimal cost of this event is an important factor for a small business. "Companies can spend thousands of dollars just to get in front of one person," he says.

Goodwin, as well as the other attendees, appreciated the networking opportunity, not just with the over 30 exhibitors but with the almost 200 participants. The expo evaluations, according to Bogaczyk, didn't contain a single negative comment.

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CIRAS guides successful commercialization partnership

By Lawrence Johnson, Food Science and Human Nutrition, and Brenda Martin, CIRAS/Iowa Central Community College

NFI Iowa, a partnership between Northern Iowa Grain Processing (NIGP) of Riceville and Nutr-e Food Innovation of Collierville, Tennessee, contacted the Iowa State University Center for Industrial Research and Service (CIRAS) regarding commercialization of a process for agricultural products. CIRAS directed NFI Iowa to the Iowa State University Center for Crops Utilization Research (CCUR) for assistance with commercialization.

CCUR conducted a proprietary trial in the Wet Processing Pilot Plant for NFI Iowa. Joel Yorgey, NIGP, and a consultant were present to oversee the trial. Identity-preserved grain was shipped to the CCUR pilot plant. Nutr-e Food Innovation provided proprietary processing technology for the trial. The grain was processed to Nutr-e's specifications, yielding about 100 gallons of material. The material was fed through a pilot-scale decanter centrifuge for separation. The resulting solids fraction was dried in a convection oven, and the supernatant was collected and stored in a cold room. All materials were picked up by NFI Iowa. The results of the trial allowed NFI Iowa to adjust their process to improve the separation further.

NFI Iowa is building a 6,300-square-foot facility in Osage, Iowa, that will take grain and apply a patented process from Nutr-e to provide new ingredients that function similar to soy protein. The process can be applied to nearly any grain, oilseed, or nut. Initially, NFI Iowa will focus on processing amaranth and meadowfoam seeds. The ingredients will serve worldwide niche marketplaces for the food and cosmetic industries.

Nutr-e's process provides nutritional product manufacturers with a way to create and market innovative products that are unique and nutritionally superior. The company states that their process increases the nutritional value of a product by maximizing the bioavailability of the nutrient properties found in the raw ingredients. This means the product will be absorbed into the bloodstream at a much higher rate than products with low bioavailability.

Center for Crops Utilization Research

The Center for Crops Utilization Research (CCUR) at Iowa State University was established in 1987. CCUR is a multidisciplinary research, development, and technology-transfer program focusing on new processes, products, and markets for corn, soybeans, and other Midwest crops. CCUR provides facilities and services for processing agricultural products.

CCUR has pilot scale facilities available to assist with scale-up of dry processing, fermentation, hazardous solvent extraction, industrial products processing, and wet processing.

Laboratories for analytical services, process development, and sensory evaluation provide services for new product development. CCUR also provides grant development and technology commercialization assistance. CCUR has 58 affiliated faculty from 14 different departments. Many of the faculty work closely with companies on applied research and commercialization projects.

CCUR recently formed a partnership with CIRAS to provide a range of services, expertise, and equipment. If your company is interested in learning more about CCUR facilities and services, please call your regional CIRAS account manager.

The Osage City Council and the Osage Development Corporation provided incentives for the new facility, which is expected to provide eight new jobs in Osage.

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CCUR has pilot scale facilities to assist with scale-up of dry processing, fermentation, hazardous solvent extraction, industrial products processing, and wet processing.



Crucial data

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disruption in production facilities caused by structural damage or disconnected utilities. Of the companies reporting that they were directly or indirectly affected by the floods or tornados, 85% were able to provide more detailed information about the effects of the disasters. Many companies experienced more than one problem. The effect of the floods outside of the calling area will likely be significantly less, but anecdotal evidence suggests that there were many more companies in Iowa indirectly impacted by the floods.

Workforce was the number one issue affecting companies. Fifty-six percent of all surveyed companies indicated problems related to their workforce. Of companies with 5 to 500 employees, two out of every three responding to the survey reported workforce issues. This created a variety of problems for manufacturers, including delays in order delivery, short-term lost sales, lost customers, and added costs when penalty clauses were included in orders.

“Most of the comments we got related to lost labor hours from employees who could not get to work or who had lost their own homes,” Rudy Pruszko, CIRAS project manager, says. “Some smaller companies had to shut down entirely because of a shortage of workers. And lost production time for some will mean future overtime, which is an additional expense.”

Outside of workforce, road transportation was the second most reported issue, with 53% of companies reporting problems caused by roads. Beyond hindering employees getting to work, closed roads also prevented or slowed incoming supplies and outgoing finished products. Closed roads added transportation costs as alternate, longer routes had to be located. Most roads reopened with limited damage after floodwaters receded, but several roads sustained significant damage.



Extensive flood damage affected industrial production.

Companies also were dealing with supply interruptions, flood-affected customers, backed-up sewer drains, and other issues that prevented them from operating normally. Some companies have managed to get back up and running and are working on the backlog of orders, Pruszko said. But others weren't sure how long they would remain shut down, or whether they would reopen at all.

The monetary impact of the disasters on the companies surveyed varied significantly. Company estimates ranged from zero to millions of dollars. The median value of capital damage reported per employee was \$3,100 and the median value of lost income or profits per employee was \$2,200 for companies directly impacted by the flood or tornados. The median value of lost income or profits of companies indirectly affected was \$400 per employee.

Still, it is difficult to accurately assess the total impact of the flooding and tornados on manufacturing. Many companies could not be reached during the survey period. Despite the uncertainty in the data, it is reasonable to expect damages and lost income to exceed \$100,000,000.

For more information, please contact Ron Cox, CIRAS director, at 515-294-9592; rcox@iastate.edu, or contact CIRAS account manager: www.ciras.iastate.edu, 515-294-3420.

New program wins companies over, fosters inventive growth

By Paul Gormley, CIRAS, and Marilyn Vaughan, Extension Communications

Even though an election isn't decided until the last ballot is cast, a new CIRAS program with an unusual name has already received a big vote of confidence from its first clients.

"Eureka! Winning Ways® is a terrific way to cut through all the clutter in the day-to-day business world and focus on the entrepreneurial spirit," says Chad Reece, Winnebago Industries director of marketing. Reece participated in the preliminary program held in Iowa last year as a representative for CAPCO, a division of the recreational vehicle giant Winnebago Industries.

This novel endeavor gives companies the tools to look at things differently by pulling diverse employees together into teams so they can generate many ideas for growth, explains CIRAS project manager and session leader Paul Gormley.

Bill Van Lent, president and owner of Veridian Limited in Spencer, whose company also was involved, likens the process to teaching employees how to fish for ideas. "It's a very organized way to flesh out ideas, to boil them down to those that make the most sense and have the greatest opportunity to be successful," he says.

Doug Hall, a nationally known management consultant, created Eureka! Winning Ways to help companies hone their hunches to bring them new customers and increased sales. Gormley became hooked on the program when he attended one of Hall's workshops two years ago in Florida. Then Gormley and Steve Devlin, another CIRAS program manager, each spent a week during 2007 at Eureka! Ranch® in Ohio, where they became certified as Eureka! Winning Ways growth coaches.

"The program excited the heck out of me," Gormley recalls. "Doug Hall's favorite question is, 'What makes your company great?' Eureka! Winning Ways has both the creativity and discipline to drive companies forward."

The bald and bespectacled Hall, who wears Hawaiian print shirts and shorts at his seminars, is an engineer who spent nine years with Procter & Gamble as a master inventor. Hall's Eureka! Ranch is an 80-acre, Cincinnati-based think tank that develops new products and services for such behemoth businesses as Nike and Walt Disney. His heroes are the production guru W. Edwards Deming and Benjamin Franklin, whose signature kite is incorporated into the Eureka! Ranch logo.

Unlike this entrepreneur's other ventures, this program is targeted to small and mid-sized businesses. It focuses on Hall's approach for growing top line sales: the overt benefits of the company's product, the real reason to

believe, or the product's credibility, and the dramatic difference the product will make for customers.

Along with CAPCO and Veridian, which manufactures protective firefighting equipment, two other companies decided to give it a try: Hawkeye Steel Products, a manufacturer of agricultural products in Houghton, and Clarion-based Hagie Manufacturing, which makes agricultural chemical sprayers.

The first three, all past or present members of CIRAS's Advisory Council, learned about the program from Gormley at a council meeting. CIRAS account manager Derek Thompson directed Hagie management to the program after leaders there indicated interest in pursuing additional avenues for growth.

Each participating company formed a team consisting of 8 to 16 members from upper management to line workers and spent a full day fleshing out ideas. The only mandatory Eureka! Winning Ways participant, according to Gormley, is the company leader—the ultimate decision maker.

"Within the team," he explains, "the president has the most rules. The presidents are the ones who have to hold their tongues a little bit. We're looking for diversity in the group to break that groupthink. What we're trying to do is develop an entrepreneurial team."

Adds Tom Wenstrand, president of Hawkeye Steel, "It allowed us to communicate internally in a way that we wouldn't have otherwise because we brought key people together."

In his role as the growth coach, Gormley had individual team members use idea journals to list at least six ideas per person. "We tickle their brains and this idea journal is the feather," he says.

"The most surprising part of the process was the vast number of ideas generated," says Reece. His co-worker, CAPCO manager Keith Heimer, echoes that sentiment. Team members were impressed by their ability to come up with so many ideas and their renewed cooperation to develop them, he says. Gormley estimates each team compiled 70 to 100 ideas from their journals.

Those who participated in the process believe having an outside coach was important for stirring the idea pot and for targeting which ideas were worth exploring. "It was a good thing to talk to an outside party to break those mind blocks, to have somebody challenge those thoughts and give feedback," notes Sandy Smith, Veridian IT and special project manager.



Left: Members of the CAPCO team work to select the best ideas for growth during their Eureka! session. **Right:** Team members from Hagie Manufacturing develop ideas for growth with overt benefit, real reason to believe, and dramatic difference.

Once the teams' ideas were in hand, they were computer analyzed for idea quality, innovation status, sales forecast, and fair market valuation. Within five to seven business days, the teams received their top contenders—those with the highest probability of success.

Next, the ideas were subjected to what Eureka! Winning Ways defines as the “fail fast, fail cheap, and get smart” stage, known as the Trailblazer® process. Each team selected scouts to gather facts for each winning idea and “look at the idea from every angle possible to eliminate any ‘death threats’ that would kill it,” Gormley says. The scouts reported back to the groups every 30 days, meeting with Gormley each week to track progress and work through any issues they could not conquer alone.

“In all good companies,” Van Lent says, “good ideas bubble up periodically and strategies get kicked around. The reality is that in most businesses there’s seldom a situation where clear responsibility or clear accountability gets assigned. Through the Eureka process, things are well mapped out so you don’t have to explore territory on

your own. It adds a level of discipline and follow-through lacking in most organizations.”

Each company ended up with two ideas to explore. Veridian found the investigation phase particularly valuable because a competitor had already patented one of its ideas, saving the company time and money. Hawkeye Steel is in the process of developing two projects, including a possible patent. And, in what could be the biggest winner of all, one of the four firms is nearly ready to market an idea with the potential to generate \$1 million in future gross sales.

Winnebago Industries' Chad Reece defines the entire Eureka! Winning Ways process as a healthy experience and advises companies considering the program to put their reservations aside and “step up to the plate. In the end, you’re going to come out as a much better, stronger company.”

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WebWatch

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- Operations/Production Management—assist in implementing operations management methodology focusing on capacity-constrained resources
- Plant Layout Simulation—provide systematic, cost-effective means of evaluating layout scenarios
- Supply Chain/Distribution Management—assist in the development and implementation of “replenishment” inventory system that will result in higher fill rates to customers, lower levels of raw materials inventory, work-in-process inventory, and finished goods inventory
- Theory of Constraints—provide workshops, self-study program, and project to implement TOC methodology
- Training within Industry—teach the essential skills needed by all people responsible for the work of others, regardless of their industry:
 - Job Relations Training—teach supervisors how to build positive employee relations
 - Job Instruction Training—teach supervisors how to quickly train employees to do the job correctly, safely, and conscientiously
 - Job Methods Training—teach supervisors how to produce greater quantities of quality products in less time

For more information, visit the CIRAS Web site at www.ciras.iastate.edu.

Iowa State students, CIRAS, and Iowa companies all win with new curriculum

By Joseph Chen, Agricultural and Biosystems Engineering; Ron Cox, CIRAS; and Marilyn Vaughan, Extension Communications

A paper about a newly developed lean manufacturing curriculum at Iowa State University won the 2008 Best Paper Award in the Manufacturing Division of the American Society for Engineering Education (ASEE).

Joseph Chen, professor of agricultural and biosystems engineering, and Ron Cox, CIRAS director, wrote the paper, “Win-Win-Win Curriculum in Lean/Six Sigma Education at Iowa State University.” The award was presented at the 2008 ASEE national conference held in Pittsburgh, Pennsylvania, this past June.

First offered in the spring of 2007, the curriculum evolved from an industrial technology course in which Chen had taught lean principles since arriving at Iowa State in 1994. In that original class, Chen lectured on basic lean manufacturing principles such as defect prevention and participative management through teamwork with emphasis on continuous improvement. He designed lab assignments to help students gain a better understanding of the concepts.

“I would buy a product such as a barbecue grill,” Chen says. “The students would tear it apart and then brainstorm about how it could be improved. Then they would develop a plan for assembling the new design in a production line. The goal was to end up with a higher quality product and an efficient production process.”

While Chen often heard from alumni how much they had learned in his class, he wanted to give students real hands-on experiences working on an actual project in industry. “Simulations aren’t enough,” he explains. “You have to make a lot of assumptions and that doesn’t give you the chance to truly grasp what is happening in a company in terms of production, inventory, or transportation. I wanted to find a way for students to see and address real situations.”

Chen’s former students also called him periodically to request his assistance at their work sites. “They would tell me they had learned the concepts, but their bosses weren’t really buying into the lean philosophy,” Chen recalls. “They would ask if my class could come to their companies and do a project and in the process help educate their bosses about the benefits of implementing lean principles.”

With the interests of both current students and graduates in mind, Chen began restructuring the course curriculum. He approached CIRAS with an innovative plan to enhance his students’ learning experience by moving them out of the classroom and into manufacturing facilities to serve as leaders in helping companies to incorporate lean tools. CIRAS agreed to work with Chen.

CIRAS, which is an outreach arm for the College of Engineering, has provided lean manufacturing awareness and training to Iowa manufacturers for more than a decade, making the organization a valuable resource for Chen and his class. The collaboration benefits CIRAS as well.

Manufacturing comprises the largest segment of Iowa’s economy, but 90% of the manufacturers have fewer than 100 employees and many do not have the budget to support full-time lean specialists. Consequently the need for assistance in learning and incorporating lean management principles is very high. “Professor Chen’s curriculum provides CIRAS a way to reach more companies,” Cox says. “Through their interactions with the students, manufacturers are learning about lean principles and also about the continuing services that CIRAS offers.”

The curriculum, which is offered fall and spring semesters each year, includes two components: 32 hours of lectures and lab activities for learning lean tools and principles and 22 hours working as a lean team at a local manufacturing company. Chen works with CIRAS and Iowa State alumni to locate projects at companies within 50 miles of campus for students. The proximity is necessary to facilitate visits to the work sites.

The lean lectures and lab activities are broken into four sections: Lean 101 training, value stream mapping (VSM), techniques for implementing lean strategies, and cost justification and effectiveness presentation. Chen discusses the basic lean concepts of reducing “muda” (wastes) and respecting people. He covers various lean techniques and strategies for helping a company determine where waste is occurring and developing a systematic procedure for eliminating the waste and becoming a more productive and profitable entity.

The project is set up in four stages with different team members rotating into leadership positions at each stage.

Stage one involves the team walking through the plant with the manufacturing manager to collect information to develop a current VSM. VSM is a process that enables the lean team to take a comprehensive look at the manufacturing process as it occurs from start to finish. Emphasis is placed on the map’s accuracy because errors or omissions will cause problems later.

In stage two, the team applies lean principles to discover areas where improvement can be made. From this assessment, the team proposes a future VSM as a guide for lean projects. The team then brainstorms and identifies key problems or wastes such as defects, delays or waiting time, and surplus inventory.

As part of stage three, the team delves into the root cause of the wastes and plans kaizen events. “Kaizen is a system for continuous improvement,” explains Chen. “A kaizen event is the process of breaking down a specific area and figuring out what has to happen to eliminate the waste.”

In stage four, the teams make formal presentations to company representatives and the other student teams. The presentation highlights their recommendations as well as the impact those recommendations will have on the company’s profits.

When one team is presenting their lean project, another team is designated as the vice president (VP) team. “This way the students ask tough questions and challenge their peers,” says Chen. “It is very educational for them to look at a project through a vice president’s perspective. It is part of the system to help students prepare to be lean leaders in the future.”

The teams then revise their presentations based on suggestions from the audience and the VP team. The presentation is videotaped and included on a CD for students to use in their job search. The companies also receive a complete report on the project to further assist them in their quest to become more proficient in lean manufacturing processes.

As of May 2008, Chen has taught the curriculum three semesters with five-to-six student teams completing projects each semester. “It is a win-win-win situation,” Chen says. “Students are learning the lean principles and gaining experience being lean leaders in industry; manufacturers are getting help implementing lean techniques and strategies; and CIRAS has extended its outreach to companies and is gaining visibility as a resource.”

That outreach may soon be extended further with other Iowa State engineering departments expressing interest in creating similar curricula, according to Cox.

Meanwhile, the presentation at ASEE means educators across the country may also someday offer such courses, and that is fine with Chen and Cox. “Our goal,” says Chen, “is to develop lean leaders. By doing so, we will help U.S. manufacturers become more competitive in the global market.”

For more information, please contact Joseph Chen, professor of agriculture and biosystems engineering, at 515-292-3505; cschen@iastate.edu, or Ron Cox, CIRAS director, at 515-294-9592; rcox@iastate.edu, or contact a CIRAS account manager; www.ciras.iastate.edu, 515-294-3420. ■

New program aims for business success in rural Iowa

By Ruth Wilcox, CIRAS, and Marilyn Vaughan, Extension Communications

Iowa manufacturers in rural areas are receiving the resources they need to grow and to be successful from CIRAS and the Iowa Farm Bureau’s Renew Rural Iowa program. The two developed a formal agreement to work together for the benefit of small businesses.

In conjunction with existing CIRAS services, the Renew Rural Iowa program provides a mentoring model and a rural vitality investment fund. The agreement is an attempt to rectify Iowa’s ranking as 50th nationally in business creation and long-term employment growth.

“The Farm Bureau’s strengths and its relationship with rural communities, along with CIRAS’ resources, can make a great impact on economic development in Iowa,” says David Lyons, Iowa Farm Bureau chief business development officer. “We can achieve more working together on Renew Rural Iowa than we can separately.”

A result of this combined effort was a one-day seminar on October 1 at Iowa State. The seminar featured Curt Nelson, author and president of the Entrepreneurial Development Center located in Cedar Rapids. He presented “Baking and Business 101, A Recipe for Business Success.”

“With the recent flooding impacting Iowa’s business community, this seminar provided timely tips and inspiration for those facing transition,” says Sandy Ehrig, Renew Rural Iowa economic development administrator.

CIRAS program manager Ruth Wilcox says the seminar offered an insightful look at how to define and create the ingredients for successful businesses. Seminar participants learned how to assemble a balanced and talented leadership team, how to understand the definition and value of a true business leader, and what resources are critical to the overall success of a business.

Attendees also had a chance to connect with staff from CIRAS, the Ames National Corporation (a bank holding company that co-hosted the seminar), and other organizations, both public and private, offering different kinds of support for companies.

“Many businesses are not aware of the range of knowledge and entities in the state available to assist them in succeeding,” Wilcox says. “This seminar was an opportunity for them to learn what resources are out there and network.”

For more information about Renew Rural Iowa and future seminars, refer to its Web site at www.renewruraliowa.com or contact a CIRAS account manager, www.ciras.iastate.edu, 515-294-3420. ■

CIRAS adds five new advisory council members



Terry Kieffer, president of Plastics Unlimited, established the Preston-based firm in 1993. Plastics Unlimited manufactures thermoformed and urethane products. It also has a patent pending for a tool-less engineering composite process for fibreglassing.



Mo Lockwood serves as the manufacturing manager for Thombert, North America's largest manufacturer of polyurethane wheels and tires for narrow aisle electric lift trucks. The Newton-based manufacturer offers 4,000 different parts to more than 400 industries. Thombert has been in the plastics business since 1952.



Scott Marienau manages the Snap-on Tools plant in Algona. Snap-on Inc. is headquartered in Kenosha, Wisconsin. Its Iowa subsidiary produces custom-made rolling tool cabinets for industrial and automotive use.



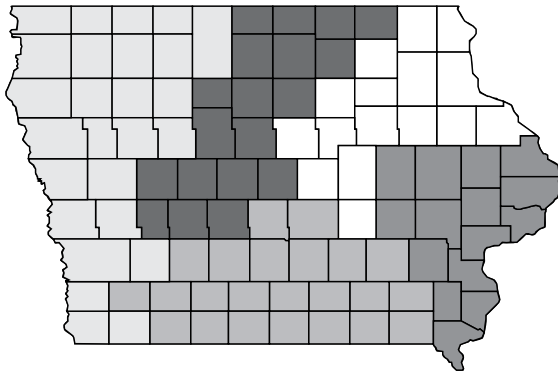
Joe Meier is the plant manager for Geater Machining and Manufacturing in Independence. Geater specializes in high-speed machining and sheet metal fabrication. The company also does chemical processing, painting, welding, and assembly. It has been servicing aerospace, electronics, and other high-tech industries for 46 years.





Dave Zrostlik is the president of Stellar Industries, Inc., a hydraulic truck equipment manufacturer located in Garner. Founded in 1990, Stellar manufactures hydraulic hook lift hoists, tire and mechanic service cranes and trucks, cable hoists, truck-mounted heavy-duty drawer sets, and air compressors.

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. Their contact information follows.



- North Central 
Derek Thompson, thompson@iastate.edu, 515-419-2163
- South Central 
Joseph Papp, jpapp@iastate.edu, 515-231-1452
- Southeast 
Sean Galleger, galleger@iastate.edu, 515-290-0181
- Northeast 
Joseph Papp, jpapp@iastate.edu, 515-231-1452
- Western 
Bob Coacher, coacher@iastate.edu, 515-419-2162

New staff

Mike O'Donnell joined the CIRAS team in September as a project manager supporting industry emergency management initiatives and supply chain management activities. Mike is originally from Massachusetts and received his BS and MS in mechanical engineering from Bucknell University in Pennsylvania. After leaving Bucknell, he worked for Lockheed Martin in a variety of manufacturing, project, and program management roles for domestic and international programs. While at Lockheed Martin, Mike supported several strategic initiatives including lean and Six Sigma business process improvement, supplier quality and improvement efforts, and new business pursuits. Mike then moved to Sydney, Australia, where he worked for Sunbeam Australia leading engineering and quality for a variety of products sourced throughout China, collaborating with several partners covering the Asia Pacific and European regions.



Mike looks forward to bringing his experiences in production and operations management and international business skills to the CIRAS team in supporting Iowa industry.

State funds available for IT training

By Marilyn Vaughan, Extension Communications

Iowa manufacturers can tap into state funding to provide additional training for their information technology (IT) workers, thanks to a new program created by the Iowa Legislature.

The Information Technology Training Program, administered by the Iowa Department of Economic Development, offers grants of up to \$25,000 per company per fiscal year. The matching funds cover one-third of training costs, while manufacturers are responsible for the rest. To be eligible, Iowa-based IT companies or IT departments of Iowa companies must be engaged in one of the targeted industries of biosciences, advanced manufacturing, or information technology.

"I'm trying to get the word out," says state program manager Kim Bentley. "These funds are available to IT workers in advanced manufacturing and the biosciences, not just to IT companies." The funds also apply to workers who might not traditionally be considered as delivering IT services, such as electrical and electronics drafters, computer-controlled machine tool operators, and numerical tool and process control programmers, according to Bentley.

Manufacturers are reimbursed at the cost-share rate for tuition, contracted or subcontracted professional services, training-related materials, facility fees, and travel. Employees can receive the training either inside Iowa or out of state.

"It's up to companies to determine their IT training needs and the best trainers to supply these needs," Bentley says. Companies can apply for the program year round.

The Iowa Department of Economic Development and its committee members grade the applications according to a number of factors. The greatest weight is given to applicants who successfully establish their company's need for training and document that this training is related to high-level technology and that it will improve employees' skills, knowledge, and abilities.

The Iowa Legislature passed the IT Training Program during its 2007 session to upgrade the high-level technical skills of existing employees in the state. The program is part of government efforts to strengthen Iowa's economy by developing, focusing, and investing in technology.

The move toward increased technology training began with *Iowa's Information Technology Strategic Roadmap*, Bentley says. The report, prepared by the Battelle Memorial Institute, was released in 2005.

For more information about the IT Training Program and to download an application, access www.iowalifechanging.com/business/ic/ITfunds.html or contact Bentley at 515-242-4808; Kim.Bentley@iowalifechanging.com, or contact a CIRAS account manager; www.ciras.iastate.edu, 515-294-3420. 

More biobased products obtain federal approval

By Steve Devlin, CIRAS, and Marilyn Vaughan, Extension Communications


Biobased manufacturers received a big boost recently as the U.S. Department of Agriculture approved 27 new biobased product categories for federal procurement preference, bringing the total to 33 categories. Approximately 750 qualifying products in these categories have already been added to the catalog on the USDA's BioPreferred Web site, where procurement agents can obtain biobased products.

"This provides an advantage to biobased manufacturers looking to sell to the federal government," says Steve Devlin, manager of the USDA's BioPreferred program.

Adds Joseph Glauber, USDA chief economist, "The BioPreferred program has now reached a critical mass with these new products. I expect a marked increase in federal purchases."

As a result of these additions, federal agencies now have to develop purchasing guidelines for qualifying biobased products from these categories, unless their purchases meet the exemptions specified under the federal biobased law. Agencies do not have to purchase biobased products if they are not reasonably available, fail to meet performance standards, or are too expensive.

Among the products recently granted preferred procurement are composite panels, fluid-filled electrical transformers, two-cycle engine oils, greases, stationary hydraulic fluids, and metalworking fluids. For a complete list, refer to the USDA's BioPreferred Web site, www.biopreferred.gov. The Web site also provides details on how manufacturers and vendors can participate in the BioPreferred program and how they can have their products qualify for federal purchasing.

For more information, please contact Steven Devlin at 641-613-3297; sdevlin@iastate.edu, or contact a CIRAS account manager; www.ciras.iastate.edu, 515-294-3420. 

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www.ciras.iastate.edu

WebWatch

The CIRAS Web site has a quick and easy way for Iowa manufacturers to access information on productivity improvement. Productivity is the ratio of output to input. Improve your bottom line by focusing on organizational productivity ratio of company-wide output to input. The productivity improvement team uses a variety of methods including lean, constraint management (TOC), and simulation. By leveraging improvement in the areas that have the highest capability to impact your company's bottom line, your company will realize a high return for the dollars invested to improve quality, cost, and/or delivery.

CIRAS staff can provide assistance in the following areas:

- Cranes/Monorails—assist with the selection of new industrial crane and monorail systems; provide information on design standards for industrial cranes and monorail systems; and provide education on the basics of industrial cranes and monorails
- Lean—facilitate the use of the following lean tools
 - 5-S/Visual
 - Cellular/Flow
 - Kaizen implementation
 - Kanban/Pull
 - Setup reduction
 - Six Sigma
 - VSM (value stream mapping)

The screenshot shows the CIRAS website interface. At the top, there is a search bar and navigation links for 'Staff' and 'Contact Us'. The main content area features a sidebar with a tree view of service categories including Industry Emergency Management, Industry Services, EcoIndustry, Energy, Engineering, Management Practices, Procurement, Productivity, Quality Management, Industrial Research, Economic Development, Online Courses, Events, Job Seekers, Hiring Students, and Visitors. The main content area has a header for 'Industry Emergency Management' and a map of Iowa with a text box explaining that users can click on a county to view regional account manager information. There are also sections for 'About CIRAS', 'Partners', and 'Library'. The footer contains contact information and copyright notices.

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