



Mariposa Farms Sprouting New Levels of Manufacturing Expertise

Success sort of snuck up on Dave and Denise Conkling. Their business sprouted and grew, until one day it seemed to have grown beyond their control.

“We started really small, and we just managed everything ourselves,” said Dave Conkling, owner of Mariposa Farms. “We were looking at the business one way, because we had this 20-something years of experience. When CIRAS came in, they could look through different eyes, and it became clear to them what we needed to do.”

Mariposa Farms started in Grinnell in 1995 as the first seedling of a new life. The Conklings, seeking to move back to Iowa after some time spent in the

New Mexico home-building business, were looking for a new venture that could combine Denise’s botanical expertise with Dave’s experience in greenhouses. Their idea was to attack a then-nonexistent marketplace in Iowa—providing fresh herbs to retail stores.

And it worked.

Over the next two decades, Mariposa grew from three non-Conkling employees to 30. Today, shoppers in 15 states regularly purchase Mariposa

herbs at a list of stores that includes Walmart, HyVee, Fareway, and Price Chopper, to name just a few. For many years, to put it mildly, the business has been busy.

“It’s not a huge company, but it’s different than I really expected it to be,” Conkling said. “A lot of these things did creep up on us....Our management techniques, people skills—all of those things worked really well. But once we reached a certain size, they didn’t work as well.

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Inside a Mariposa Farms greenhouse

"It was just too much for us to do," he said. "Running everything else and then thinking through and having the time to make those kinds of long-term decisions. We really needed twice as much management, but we couldn't afford it."

The issue came to a head last year when 60-year-old Dave Conkling began thinking about what Mariposa would look like without him in it. The conclusion ultimately was that it needed to be better. The Conklings, who hope eventually to pass the business to their daughter, Colette Conkling, were actively looking for consulting help when CIRAS account manager Brenda Martin happened to walk through the door one day and introduce herself.

"I read about them somewhere, then I bought some of their herbs in a grocery store," Martin said. "Then I found their website....The first conversation was that they didn't have a transition plan. Dave had checked out other resources and didn't really get anywhere with people who could coach him on how this transition should go."

CIRAS since has worked with the Conklings to evaluate Mariposa's finances, streamline the herb-processing operation, and help the company focus on those areas that will prove most profitable long term.

In one step, CIRAS project manager Jim Poe helped Mariposa Farms create a separate quality employee role to sort the herbs before they were delivered to packaging employees. The new system meant that packagers, who no longer were delayed by sorting through and replacing damaged herbs, were able to move faster and fill more orders. As a result, Mariposa's average production of 8,000 packages a day jumped to 18,000 and 24,000 during a few days in the company's busiest period last year.

"The first conversation was that they didn't have a transition plan. He had checked out other resources and didn't really get anywhere with people who could coach him on how this transition should go."

— Brenda Martin

On the Cover: Collette Conkling (left), Dave Conkling, and Denise Conkling.

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With CIRAS' help, Mariposa Farms has streamlined its packing operation over the last year, sparking record productivity.

For Poe, the changes provide a prime example of what can happen when successful businesses understand which parts of the production process need the most monitoring.

“Really, what it amounts to is how do you run a manufacturing facility? Because that’s really what they are,” Poe said. “How do you staff something? And how do you get the information to staff properly?”

Growing businesses frequently don’t notice when they cross the threshold that requires a more formal approach to management, he said.

“They’ve been in this business for 20 years, and they’ve been happy with the results—not really knowing all the details about where they were making money and where they were losing money,” Poe said. “In small companies, this is very common. I see it in basically every company I go into.”

CIRAS account manager Sean Galleger also has been working with the company to analyze which parts of Mariposa Farms are most likely to impact the business’ long-term health. The goal is to point the company’s resources at those

areas that will have the largest and longest-lasting effect.

“Like any small- to medium-sized business, they were running day to day and growing a fairly profitable and cash-flowing company,” Galleger said of Mariposa Farms. “From month to month and quarter to quarter, they knew they were growing and doing OK. But when you try to say ‘What is that worth?’ that is a different mindset. A lot of small- to medium-sized companies are so wrapped up in day-to-day operations that they never have a chance to take a look at whether the company is growing and how they can increase its value.”

“We’re trying to paint that picture of what the company is worth and what drives those various areas of valuation,” Galleger said. “A lot of companies focus on short-term decision making and how it effects day-to-day operations. When you look at company valuation, you should be looking at long-term decisions.”

Conkling, who plans to continue working with CIRAS experts for at least another year, couldn’t be more pleased with the new, unbiased perspective he’s getting. More work is needed, however, to make certain that the new procedures become a repeatable part of the culture and not just a temporary fix.

“We saw production numbers during our busiest time of the year that were pretty unbelievable, just by making some of these changes,” Conkling said. “It worked, but people get tired. We need to figure out how to make it last.”

Conkling praised the objectivity and expertise of his CIRAS partners, who provide trustworthy advice “without trying to sell me something.”

“Before, I kind of felt like the Lone Ranger, you know? Everything was on my shoulders. Now, I don’t. It’s kind of like I have the resources of a bigger company at a very reasonable cost.”

— Dave Conkling

“Before, I kind of felt like the Lone Ranger, you know? Everything was on my shoulders,” he said. “Now, I don’t. It’s kind of like I have the resources of a bigger company at a very reasonable cost.”

➤ For more information, contact Brenda Martin at bkmartin@iastate.edu or 515-570-5282.

Engineering Capstone Projects Lead to Innovative New Products

Two Iowa companies over the past year have separately discovered a new way to safeguard vibrating truck fenders and a new, more attractive way to lock patio doors—both as a result of work done by graduating students at Iowa State University.

Capstone students in Iowa State’s College of Engineering worked on the truck fender project for Link Manufacturing, a Sioux Center company that manufactures heavy-duty truck suspensions. The company asked students to extend the life of after-market fender brackets that sometimes were breaking because of vibration.

“We gave them blueprints of our parts, explained the problem, and had weekly/ biweekly meetings through most of it,” said Bill Ott, vice president of engineering at Link Manufacturing. “They made a visit out here. We offered use of our lab, helped with tooling that they might need, and gave them parts and drawings, and they did the engineering analysis and made some recommendations.”

As a result, Link Manufacturing has begun work on a prototype fender isolator that the company expects will boost sales by 500 fender kits and save at least \$20,000 in annual warranty costs.

CIRAS project manager Carey Novak said capstone students worked on 115 projects in 2016, gaining valuable

experience while helping Iowa companies create new products or streamline their business models. During each of the last three years, companies involved with such projects reported at least \$20 million in cost reductions and/ or new or retained sales attributable to the work.

Last fall, capstone students at Pella Corporation were challenged to develop a new means of securing a sliding patio door. The company wanted a lock that was easier to operate and more aesthetically pleasing than its current design. Pella ended up pleased with the results.

“They came up with a new approach that we’d not pursued previously,” said Kevin Gaul, engineering manager for industry affairs, product reliability, and design assurance at Pella. “We’re taking one of their concepts further



this summer, leveraging one of our Iowa State co-op students to get the idea market ready.”

Pella also has been using its Ames research location to enhance the firm’s relationship with Iowa State. Gaul said Pella is exploring more ways to work with faculty to spark technology-based innovation. The company meanwhile will continue efforts to foster deeper collaboration with students.

“They came up with a new approach that we’d not pursued previously. We’re taking one of their concepts further this summer, leveraging one of our Iowa State co-op students to get the idea market ready.”
— Kevin Gaul

“The students’ space at the Iowa State Research Park has been key to us being able to engage them on our projects,” Gaul said. “It gives the students the space they need for the window and patio door projects to work and plan, and to work without being disturbed.”

Above and below: Students present capstone projects at Pella Corporation in April.

➤ **For more information on capstone collaborations, contact Carey Novak at cenovak@iastate.edu or 515-408-4257.**





Online Degree Option Helps Manufacturing Workers Advance

A new degree completion program for working lowans is making it easier for factory workers to get the education they need for their careers to advance.

Engineering-LAS Online Learning (ELO), the Iowa State University office that coordinates online education in the Colleges of Engineering and Liberal Arts and Sciences, recently made the bachelor of liberal studies (BLS) degree completion program more flexible for Iowa employees, military veterans, and active military service members.

“The online BLS program, combined with their experience, provides them opportunity for advancement as well as a good bridge to higher-level degrees,” said Amanda Rasmusson, ELO program coordinator. “What we hear from employers . . . is that the BLS completion program is good for their employees who are on manufacturing lines looking to move into leadership roles.”

Prior to the last couple of years, the BLS program involved taking some classes online and some on campus. But campus officials say an expansion of online course options has made the program more convenient

for working adults who already have some college credit. The online BLS program is open to anyone who has an associate in arts or associate in science degree from an accredited two-year college or who has completed at least 60 credit hours of collegiate coursework acceptable toward graduation at Iowa State. All students in the online program pay the in-state tuition rate.

Studies show college continues to provide a more lucrative career path for Iowa workers. Data show Iowa community colleges served more than 138,000 students during the 2014–15 school year and awarded more than 13,000 associate degrees. Once graduated, 81 percent of community college students remain in Iowa.

The same report shows that bachelor’s degree graduates earn, on average, \$12,300 more per year than graduates from a two-year program.

➤ **Adults interested in the BLS degree completion program can contact adviser Callie Morrow at ccmorrow@iastate.edu or visit www.elo.iastate.edu/las-online-programs/bachelor-of-liberal-studies.**



Don Woodruff

New CIRAS Advisory Council Member

Don Woodruff is president of Woodruff Construction, a Fort Dodge-based company that provides general contracting and construction management services for a wide variety of projects, including commercial, corporate office, health care, industrial, institutional, warehouse, and production facilities. He is deeply involved in strategic planning, efficiency, personnel advancement, and the transfer and sharing of knowledge. Woodruff has a bachelor’s degree in civil engineering from the Florida Institute of Technology and master’s degrees in business administration and construction management from Washington University in St. Louis. He received an Outstanding Achievement Award from the Florida Institute of Technology in 2005.

STAFF NEWS



Andy Alexander



Beth White

Two members of CIRAS’ Procurement Technical Assistance Program (PTAP) recently achieved the highest possible level of certification in their profession.

Government contracting specialists Beth White and Andy Alexander have been named Certified Procurement Professionals by the nationwide Association of Procurement Technical Assistance Centers. APTAC says the CPP designation denotes someone who has mastered government procurement’s “specific and extensive knowledge base and skill set.”

“This certification represents the breadth and depth of the expertise demonstrated by Andy and Beth,” said PTAP program director Pam Russenberger. “I am proud of their accomplishment and the fact that they can share their national-level, elite expertise with Iowa companies.”

Composition of Recent Growth in Iowa by Liesl Eathington

Population growth, job growth, and the complex, sometimes contradictory relationship between them have confounded Iowa elected officials and business leaders for decades. This article illustrates the composition of Iowa's recent job growth (2009–2015) and population gains (2010–2016) in terms of source and distribution.

Population change stems from two equally important sources: natural change and net migration. Natural change is simply the difference between the number of births and deaths in a given time period. So far this decade, Iowa has added 65,000 net new residents through natural change. Net migration, which includes both international and domestic flows, has contributed roughly 25,000 new Iowans since 2010. Domestically, Iowa lost about 10,000 residents through net exchanges with other U.S. states; however, those losses were more than offset by 35,000 international in-migrants.

Iowa's nine metropolitan areas captured the bulk of recent population gains, accounting for 96 percent of the state's natural change and 79 percent of international migration. Unlike the rest of the state, metropolitan Iowa also enjoyed gains from domestic migration.

Iowa's 17 micropolitan areas have experienced a combined population loss exceeding 5,700 residents since 2010. They generated 5 percent of Iowa's natural population gains and attracted 14 percent of international migration flows. Those small gains were exceeded by losses from domestic migration outflows.

In the remainder of the state, international migration was the most consistent, positive source of population change. All but 7 of the 59 counties experienced at least small gains from international migration. In contrast, 37 have experienced natural population decline and 54 have experienced net domestic migration losses.

Figure 1 summarizes Iowa's population trends, contrasting them with patterns of job growth. Recent job gains have been more widely dispersed than population growth. Metropolitan areas accounted for 79 percent of new jobs from 2009 through 2015. They captured 88 percent of job gains in service industries and all of the state's net new public sector jobs. The story was different in the goods-producing sector. Although metropolitan areas captured 76 percent of new construction jobs, they accounted for only 31 percent of manufacturing job gains. Overall, 50 percent of job gains in goods-producing sectors occurred in metropolitan areas.

Figure 2 simplifies these comparisons into a telling ratio: new residents per job added. Considering a six-year period, Iowa's recent growth has yielded an average of 1 new resident per job. Metropolitan areas have added 1.7 new residents per new job. Micropolitan areas have lost nearly 1 person per each job they have added. Most alarming, the rest of the state has been

losing residents at a rate of 1.7 per job gained since the last recession.

These recent dynamics demonstrate the complex relationship between population and job growth that often challenges logic as well as policy. Particularly in labor-stressed regions of the state, where job gains are not yielding desired population gains, there is apparently no simple formula for growth.

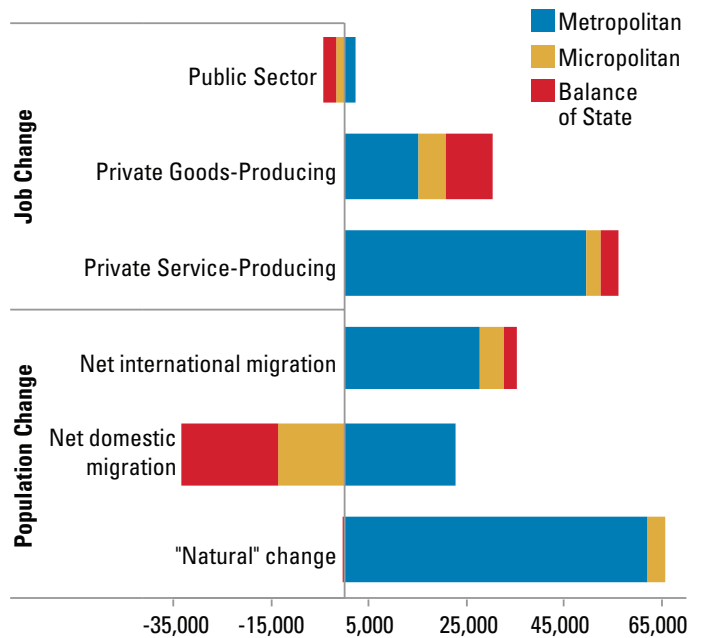


Figure 1. Source and distribution of population change (2010–2016) and job change (2009–2015)

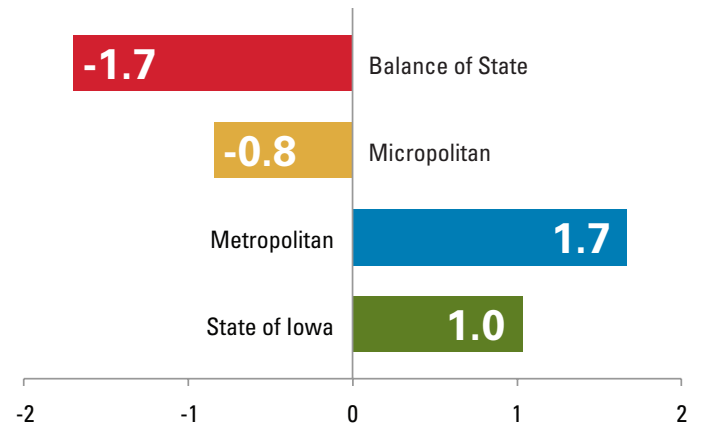


Figure 2. Recent population yield per new job

Look closely at Iowa's rolling landscape and you may be surprised to discover what is made here. Companies here create everything from machinery and pastry to software and bridges. Each issue, CIRAS News provides a sampling of some of the Iowa businesses you can support.



CIRAS' Chris Hill tells Boone High School students about parts made with a metal 3D printer.

Time to Start Planning Your Manufacturing Event: MFG Day Is on the Way

Vermeer Corporation and Woodbine Manufacturing Company are just two of the dozens of Iowa manufacturers who are planning to open their doors again this fall for Iowa's celebration of "MFG Day."

Manufacturers each year host events ranging from plant tours and manufacturing expos to job fairs and roundtable discussions as part of a daylong effort to educate young people about the opportunities available in modern manufacturing. Nationwide events are scheduled for October 6, but Iowa for several years has celebrated MFG Day as a monthlong event.

More than 600 students last year toured various stations set up on the Vermeer campus to demonstrate modern factory technology. In Woodbine, the makers of Tommygate truck lifts are expected to open their doors to students from schools in five counties.

CIRAS again is working with a host of business and academic agencies (the Iowa Association of Business and Industry, Elevate, Iowa Workforce Development, the Iowa Area Development Group, the Iowa Economic Development Authority, and Iowa State University Extension and Outreach, to name just a few) to schedule at least one event in all 99 counties. Last year, more than 8,000 people attended a total of 136 events.

"Again this year, we're going to be focused on reaching out to young people, because they're the next generation of manufacturing employees," said CIRAS account manager Paul Dunnwald.

The party is open for everyone. If your company would like to host a MFG Day event in October, email ciras_mfgday@iastate.edu.

"Again this year, we're going to be focused on reaching out to young people, because they're the next generation of manufacturing employees."

— Paul Dunnwald

Creative Edge Master Shop Inc

Overview: Creative Edge is the original pioneer of the application of super high-pressure waterjet technology to the fabrication of architectural finishes such as stone, ceramics, metals, and floor coverings. Products of the company are installed in churches, casinos, public art, memorials, theme parks, airports, etc., throughout the United States and world. Creative Edge is the oldest, largest, and most creative company of its type.

Location: Fairfield, Iowa

Founded: 1988

Employees: 35

Website: creativeedgemastershop.com



RoofTop Sedums, LLC

Overview: Roof Top Sedums, LLC, is a wholesale custom plant grower that focuses on providing green roof and green wall plants for customers in Iowa, Illinois, Missouri, Nebraska, and Kansas. The company is a supplier for the LiveRoof Prevegetated Green Roof System and the LiveWall Vertical Growing System, and it supplies plants and cuttings suitable for both roofs and walls in the Midwest.

Location: Davenport, Iowa

Founded: March 2007

Employees: 10

Website: www.rooftopedums.com (for detailed info on products, see www.liveroof.com and www.livewall.com)



Woofables, The Gourmet Dog Bakery

Overview: Woofables, The Gourmet Dog Bakery makes dog treats from scratch with care, using human-grade ingredients. Treats are available locally at retail locations in Coralville and Iowa City, nationally from the Woofables.com website, and through 200+ resellers across the country, including HyVee stores throughout Iowa.

Location: Coralville, Iowa

Founded: 2004

Employees: 13

Website: www.woofables.com



Good Strategic Planning Starts with SWOT, CIRAS Says

Usually, when you're trying to take a cold, hard look at your future, it's best to do it with fresh eyes.



Greg Ervin

That, according to Greg Ervin, is partly why Marion-based Timberline Manufacturing Co. has been working with CIRAS to plan the company's best path to growth. Timberline, a maker of wire harnesses, control panels, and custom electronics that is now in its fifth year as an employee-owned

business, approached CIRAS roughly a year ago seeking help with mapping the next portion of its future.

The company could have done that soul-searching itself, said Ervin, Timberline's director of sales. But new perspectives are valuable.

"The benefit of having someone from the outside is he or she can ask stupid questions or questions that would be sensitive to ask if you're on the inside," Ervin said. "It challenges you to handle situations that maybe otherwise would just be taken for granted or accepted internally. An outsider doesn't have to live with the day-to-day consequences of the question or the answer."

CIRAS account manager Glenn Volkman believes any strategic planning process should start with a lot of in-depth questions. Volkman recommends a formal SWOT analysis to map out the business's strengths, weaknesses, opportunities, and threats. What's learned during that process sometimes can prevent unnecessary headaches for businesses that aren't yet ready to do what needs to be done.

"Not every company is ready to do strategic planning," Volkman said. "The SWOT will help bring that out. . . . Almost every company has some barrier to change, and that needs to be addressed before they can implement any kind of plan."

CIRAS project manager Joy Donald said strategy coaches help provide focus. "Usually, a company has a hard time looking at themselves honestly without an external person coming in and guiding them through that process," she said.

Selina Schumacher, general manager of Schumacher Company

in Durant, agrees.

"It takes time to use SWOT analysis, and usually, managers have no time for that," she said. "But if there is someone from outside, in this case CIRAS, . . . it makes it a lot easier."

Also, more efficient.

"Companies never have enough time or money to address all the things that are included in a SWOT analysis," Donald said.

"So my purpose is to prioritize the time and investment involved in all the things tied to that assessment."

Donald estimated that roughly 30 percent of the moderate-sized manufacturers most likely to work with CIRAS "have robust strategic planning." The rest "are getting at it one way or another, but there's not a comprehensive approach."

"I think a lot of them just don't have time to think about ROI," Donald said. "They're just too busy doing what is in front of them." Focus is mandatory for implementation to amount to anything, agrees Timberline's Ervin.

"Companies never have enough time or money to address all the things that are included in a SWOT analysis. So my purpose is to prioritize the time and investment involved in all the things tied to that assessment."

— Joy Donald

"Just talking about it at the beginning of the year and coming up with a grandiose plan is one thing," Ervin said. "None of it matters if we don't do anything."

	HELPFUL	HARMFUL
INTERNAL	Strengths S	Weaknesses W
EXTERNAL	Opportunities O	Threats T

➤ For more information about SWOT analysis and strategic planning, contact Joy Donald at jdonald@iastate.edu or 319-359-0206.



Food industry leaders gather at the Iowa State University Research Park in May to learn about food safety.

Food Companies Seek CIRAS for Help Analyzing Gaps in Food Safety

Ron Petersen thought he had it right, but he wasn't sure.

Petersen, owner of Summertime Potato Company in Des Moines, sought CIRAS' help last year to make certain that his company was in compliance with the U.S. Food Safety Modernization Act (FSMA), a sweeping 2011 law that gave the FDA new powers to prevent foodborne illness.

The law, a rewrite of the entire U.S. approach to food safety, placed new requirements on manufacturers to document the steps they take to keep food safe. For Petersen's 17-person potato firm, life suddenly appeared complicated.

"We had really worked hard on our processes and procedures; I just wasn't sure whether it would be acceptable," Petersen said. "It's very overwhelming. We're blessed to have CIRAS and Iowa State there to help walk us through the law and how it applies to us."

Summertime Potato is one of a growing number of Iowa companies that are

turning to CIRAS for a gap analysis of where their businesses stand in light of the food industry's now-heightened expectations.

CIRAS account manager Brenda Martin said all companies either are or soon will be focused on formalizing food safety. Companies that haven't already faced a FSMA compliance deadline soon will—or they'll be pushed by customers to meet global certification standards that mimic and/or expand on the federal rules.

"If companies want to be competitive, certifications are the next step for everybody," Martin said. "If you want to be a supplier to human or animal food manufacturers, or if you

want to be on the shelves in major retail stores, this is something you're going to have to do."

CIRAS' gap analysis typically starts with examination of a company's written procedures. If the requisite programs are

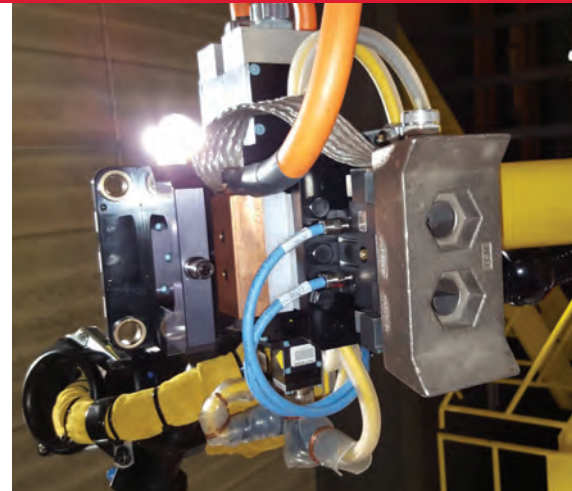
on track, experts then review employee practices and facility conditions. Company leaders stay involved so they'll know where time and resources must be allocated. The company also receives a written summary documenting where the firm stands compared to where it needs to be—before the business risks government noncompliance issues or spends money on a global certification audit.

CIRAS then remains available to assist with any problems picked up during the review.

Dan Uthe, one of two consultants who work with CIRAS to perform the assessments, said roughly half the companies he visits just need help writing up procedures. Frequently, food safety managers are just too busy with other job duties to type.

"One of the biggest challenges that we face doing this is that executive management doesn't understand how much time and how many resources it's going to take to get it right," Uthe said. "It's like eating an elephant. You take it one bite at a time."

➤ For more information on food safety gap analysis, contact Brenda Martin at bkmartin@iastate.edu or 515-570-5282.



USM Wear Technologies—Building Tougher Tillage Tools with Help from Iowa State

For years, Loran Balvanz’s company has made money selling tougher, longer-lasting equipment to the people who grind garbage and recyclables for a living.

Now, the same technology may be poised to revolutionize how farmers till fields.

Balvanz, president of Eldora-based USM Wear Technologies, has been working for years to bring his company’s patented CADEN Edge (carbide applied design edge network) to tillage tools. The company says its process, which involves welding a bead with particles of tungsten carbide along the business edge of farming implements, can make tillage sweeps and ripper points last several times longer than untreated equipment.

“For some reason, the entire industry has accepted that these things just wear out and then you replace them,” Balvanz said. “We’re giving farmers a sincere advantage by giving them equipment that lasts longer.”

Balvanz’s equipment is produced under a deal signed in March 2016 with Bauer-Built Manufacturing. The company says its massive robotic welding

system in Paton, Iowa, is capable of making more than 1.5 million parts annually with a precision and uniformity that no human can match.

CIRAS account manager Sean Galleger said CIRAS materials experts have worked with Balvanz since 2013 to test metals and the durability of parts.

“They seem to be on track,” Galleger said. “They’re building the company through new technological advances.”

As part of CIRAS-arranged research, Iowa State agricultural engineering professor Mehari Tekeste recently developed an optical scanning system to help USM Wear Technologies quantify how much metal has worn off tillage tools in the field. Tekeste also helped construct a vat and testing medium that will simulate real-world wear on tillage tools without using soil, which can vary even within the same field. Balvanz believes this process will speed development of new products.

“For some reason, the entire industry has accepted that these things just wear out and then you replace them. We’re giving farmers a sincere advantage by giving them equipment that lasts longer.”
— Loran Balvanz

From left, a robotic welding center at the plant in Paton, Iowa; a finished tillage sweep with the CADEN Edge; a close-up of the equipment.

USM Wear Technologies currently works with outside companies to purchase tillage sweeps from retailers, treat pieces with the CADEN Edge, then sell them to farmers via websites. “Usually, ours cost twice as much as a standard sweep, and you can expect it to last three to five times longer,” he said.

CIRAS, Balvanz said, helped the product prove its worth. He expects sales to top \$2 million within two years – \$20 million if a major agricultural OEM that is now evaluating company products ultimately endorses them.

“Iowa State and the programs have been instrumental in helping us with things like quickly defining metals and engineering the angle of things,” Balvanz said.

He sees enormous potential in future collaboration – both future research for his company and benefits to Iowa State, such as the \$21,000 scanning system Balvanz recently donated to the College of Agriculture.

“Everybody wins,” he said of the relationship, “and it continues to evolve.”

➤ For more information, contact Sean Galleger at galleger@iastate.edu or 515-290-0181.

Meeting with Government Agencies

by Jodi Essex

Many government contracting professionals operate at arm's length so they can remain unbiased and avoid the appearance of impropriety. But building relationships is critical to securing government business, especially on smaller-dollar purchases that don't require public bidding. Face-to-face meetings are the perfect way to establish a relationship with an agency.

How do you get a face-to-face meeting? Start by contacting the agency's purchasing or small business office and asking for one.

You also can try to find out what events agency officials will be attending and meet them there. The government is hugely proactive in hosting events specifically to meet potential contractors. A few great ways to find events are the following:

- Follow the agency on social media and join groups.
- Check www.FBO.gov and www.GovEvents.com.
- Read CIRAS' weekly *Did You Know?* newsletter for upcoming events in your area.

Once you get a meeting, do your research! You don't want to waste valuable time asking about information that is posted on their website. Look for past, present, and future opportunities to discuss with them by researching procurement forecasts, currently posted solicitations, and expiring contracts.

It also is crucial to understand the agency and be prepared to show how your products/services help that agency accomplish its mission better than your competitors' offerings. Know what you can help them solve, and articulate that in your capability statement.

Many times, the person you are meeting with is not an expert in your line of business. Be willing to educate them on trends, new technologies, challenges, or processes in your industry. This will help establish you as an expert.

Finally, you'll want to ask if there is anyone else you should speak with about your products or services. (Typically, procurement is done by a team of people.) And don't forget to thank them for their time and ask for an opportunity to work with that agency on a future project.



CIRAS Networking Helps Express Employment Make Good Matches

Connections created through CIRAS networking events and hands-on assistance have helped a Cedar Rapids-based recruitment company grow during the past year.

Express Employment Professionals is a full-service staffing agency specializing in the industrial, administrative, IT, and engineering fields. Michele Oswood, owner of the Cedar Rapids franchise, said her company's client base has doubled since she purchased the business in February 2016.

Oswood, who had worked for the company's previous owner and also for a different staffing firm, jumped into her new leadership role with the goal of broadening her office's reach. Two of her connections suggested she reach out to Julie Fagle, a government contracting specialist with CIRAS' Procurement Technical Assistance Program (PTAP).

CIRAS staff over the past year have introduced Oswood to potential prime contractors and other companies with whom she could eventually partner, Fagle said.

"Since Michelle acquired her business she has put it in a position to be successful," Fagle said. "She's attended and participated in many events throughout the corridor, including multiple events hosted by CIRAS. She truly values the power of relationships."

Oswood said she's in touch with Fagle at least once a week. "She's been that avenue to connect me to people that she knows."

The company has yet to pursue any government contracts, Oswood said, as that process is complex, and her staff is rather small. She wants to make sure the company is prepared "before I take that leap."

However, Oswood has signed up for CIRAS' government bid-match program and learned how to create a capability statement. She's also obtaining Targeted Small Business certification for her company.

Express Employment Professionals serves businesses seeking candidates for specialized positions. Potential employees are screened and recommended to clients. If a match is made, a temporary position is created and Oswood's company handles all the details, including payroll and benefits, until a permanent position is offered.

"It gives the client a good opportunity to see if it's going to be a good fit for them and also for the associate," she said.

Oswood sees a good fit in her work with CIRAS.

"Julie has been a huge help," she said. "I just needed that extra boost."

➤ **For more information, contact Julie Fagle at jafagle@iastate.edu or 319-310-8612.**

CyHire Serves as First Stop for Students, Companies to Connect

Iowa State University's digital job board helps companies connect with a pool of potential employees that includes both graduates and current students.

"CyHire is my one-stop shop for finding internships," said Bradley Hagen, a senior in mechanical engineering. "There are always hundreds of jobs on CyHire. The built-in search filter is helpful when deciding which companies and jobs I'm going to pursue."

For employee-seeking companies, the CyHire program can be used to post full- or part-time career opportunities, as well as co-op and internship positions. The system also includes a way for businesses to promote recruitment events and schedule on-campus interviews with students. Students use it as a first stop in the search for employment, while alumni frequently return to the site when seeking new jobs.

CyHire also alerts students like Hagen to which companies will be on campus soon.

Applying for jobs through the site is quick and easy, said Hagen, who wants to specialize in project management. "CyHire is a fantastic tool that has helped me land many interviews."

The digital job board provides excellent opportunities for companies to connect with students and alumni, said Brian Larson, Director of Career Services for the College of Engineering. All ISU students have a CyHire account, and alumni can request free access.

"Students use CyHire as their primary job search resource because they know that many of the employers using CyHire have a preference for Iowa State students and alumni," Larson said.

Employers are not charged a fee for using the system and creating an account is easy. Career Services also uses the system to communicate with employers and handle the registration process for the university's popular career fairs.

"It is important for an employer representative to have an account if they want to receive the invitations to our fairs," Larson said.

FALL CAREER FAIRS

ENGINEERING FALL CAREER

FAIR—Noon to 6 p.m., Tuesday, September 19, 2017, Hilton Coliseum and Scheman Building.
Contact: ecs@iastate.edu.

BUSINESS, INDUSTRY AND TECHNOLOGY FALL CAREER FAIR—

Noon to 6 p.m., Wednesday, September 20, 2017, Hilton Coliseum. Focuses on Business, Liberal Arts and Sciences, and Human Sciences.
Contact: isucareerfairs@iastate.edu

PEOPLE TO PEOPLE FALL CAREER

FAIR—Noon to 6 p.m., Wednesday, September 20, 2017, Scheman Building. Focuses on Human/Social Services, Education, Health/Wellness, Government, and Hospitality. Hosted by the Colleges of Human Sciences and Liberal Arts and Sciences.
Contact: hscareerareers@iastate.edu.

AGRICULTURE AND LIFE SCIENCES

CAREER DAY—9:00 a.m. to 3:00 p.m., Tuesday, October 17, 2017, Lied Rec Center.
Contact: mikegaul@iastate.edu.

Register through CyHire.



Iowa's 'Year of Manufacturing' Plan Announced

Iowa business leaders are hitting the road to boost Iowa factories during this "Year of Manufacturing."

Iowa's Year of Manufacturing initiative, which was announced in January during then-Governor Terry Branstad's Condition of the State address, is intended to be a 12-month, concentrated focus on growing Iowa's manufacturing gross domestic product. Led by the Iowa Economic Development Authority (IEDA), the Iowa Association of Business and Industry (ABI), and CIRAS, business leaders in April started fanning out across the state to visit with companies and make certain that each firm understands the resources available to help.

Organizers have created a new Manufacturing Toolkit (www.IowaMFG.com) to make manufacturers more familiar with the wide variety of resources that exists in Iowa to help companies grow, boost productivity, embrace new technology, enhance their enterprise leadership, and tackle workforce-related issues.

CIRAS worked with the IEDA to fashion the toolkit, and CIRAS will play a major role in promoting the initiative.

Iowa currently has more than 6,100 manufacturers who employ more than 200,000 people, but the manufacturing economy nevertheless was flat between 2000 and 2015.

Maureen Lockwood, manufacturing manager for Newton-based Thombert Inc, praised the initiative at an April news conference as a valuable way to educate Iowa companies about entities such as CIRAS and ABI.

"Iowa has a lot of tools like these available to assist manufacturers," Lockwood said. The Year of Manufacturing "will help ensure that businesses know what help is available and how to access it."

For more information, visit www.iowamfg.com.

➤ **For more information, visit www.engineering.iastate.edu/ecs and choose "CyHire" from the menu.**

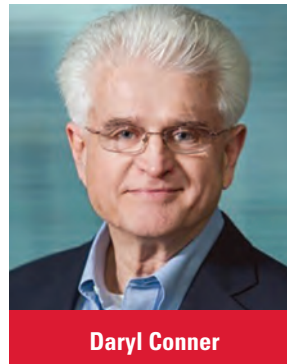
The Future of Leadership Summit Focuses on Transformational Change

Current corporate leaders and team members who find themselves at any point on the path toward transformational change in their organizations now have the opportunity to create a new map.

CIRAS, in partnership with the Renew Rural Iowa–Farm Bureau, Iowa Lean Consortium, Iowa Area Development Group, and Iowa Association of Business and Industry, is sponsoring a new, daylong Future of Leadership Summit in November with the goal of giving company executives access to the latest leadership research and best practices.

“The event on November 16 will focus on patterns of leadership behavior that facilitate successful movement and transformation change efforts, as well as expose those patterns that lead to failed transformation or change management efforts,” said Jeff Mohr, CIRAS project manager. “We’ll help people understand what works and what doesn’t.”

Experts say the fate of any fundamental transformation lies in the mindsets and behaviors of the leadership team. Daryl Conner, keynote speaker and facilitator for the November summit, will offer attendees a clear picture of how challenging strategic change unfolds, the risks that inhibit successful execution of change, and strategies to reach its realization. Conner is founder and chairman of the Atlanta-based, internationally recognized Conner Advisory and Conner Partners, as well as blogger and author of the books *Managing at the Speed of Change* and *Leading at the Edge of Chaos*.



Daryl Conner

The summit will involve a morning session for senior leaders and executives that addresses the role they play in sponsoring and realizing transformational change. In the afternoon, attendees will take part in an interactive session dedicated to the practical application of the methods presented that morning. In addition, a Q&A session will address the specific needs of the participants.

The November event comes a little over two years after CIRAS held a well-received Manufacturing Leadership Program designed to help newer leaders learn leadership skills and develop the business acumen they need to take over a company.

CIRAS program director Mike O’Donnell said such programs are aimed at filling a gaping management need at some manufacturing companies, where the bench might not always be deep enough to replace an executive who is soon due to retire.

CIRAS experts say the November summit is a more targeted outgrowth of the original leadership program.

“The CIRAS Manufacturing Leadership Program was an immersive, weeklong workshop to expose leaders in manufacturing organizations to knowledge and practice in a wide variety of topics and methodologies,” said Mohr. “The Future of Leadership Summit will expose leadership to cutting-edge research and practical application in critical leadership functions.”

The Future of Leadership Summit will be held November 16 at The Meadows Events and Conference Center in Altoona. The event registration fee is \$95.

➤ **To register, go to <https://register.extension.iastate.edu/fms>. For more information, contact Susan Clark at skclark@iastate.edu or 319-329-9267.**



Structural Engineering Laboratory

The Structural Engineering Laboratory is used to test bridge and building components along with researching new methods for making structures safer and more cost efficient.

Example Applications

- Validating capacity of various components (structural and product)
- Optimizing performance of structural materials and structural design
- Determination of bridge load capacities for posting evaluations
- Load distribution of bridge structures
- Damping characteristics
- Development uses for UHPC 30,000 psi concrete
- FRP product development to replace reinforcing bar, eliminating current corrosion issues
- Calibrating finite-element model of construction equipment high-capacity haulers
- Evaluation services of consumer products or development of products
- Structural reliability

For more information, contact

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515-294-3768

Future of Manufacturing Series Enters Final Stretch with a Digital Manufacturing Conference

CIRAS is entering the home stretch of its yearlong Future of Manufacturing series this month with a Digital Manufacturing Conference in Ames on August 8.

CIRAS project manager Shankar Srinivasan said the conference will focus on the possibilities that exist for manufacturers who link various parts of their organizations with a digital thread—possibilities that include “increasing productivity, increasing quality, and integrating more with your customer.”

Conference attendees will learn about both the available technologies and the benefits that come with the wealth of data that linked machines will create. Part of the day also will be a discussion on the cybersecurity steps that manufacturers will need to take to protect that data.

“We just want to show what’s possible,” Srinivasan said. “Maybe if people are at Point Zero, they’ll leave with a plan for getting to Point One.”



Previous CIRAS Future of Manufacturing events have discussed virtual reality, 3D printing, and sustainability, among other topics. Upcoming events will include the following:

- How to Sell Your Digital Products (September in Des Moines)
- Advances in Nondestructive Evaluation (October in Ames)
- Future of Leadership Summit (see story on page 13)
- Automation—Ready or Not? (December in Ames)

➤ **For more information about any of these events, visit the Future of Manufacturing series website at <http://register.extension.iastate.edu/fms>.**

- **Iowa Vendor Conference**
August 10, 2017
8:00 a.m. to 5:00 p.m.
Iowa Events Center,
Des Moines
- **Marketing to the Government: Advanced Marketing Techniques**
August 16, 2017
9:00 a.m. to 11:00 a.m.
Webinar
- **GovCon 101**
September 19, 2017
9:00 a.m. to 10:30 a.m.
Webinar
- **GovCon Networking Group**
October 18, 2017
10:00 a.m. to 11:00 a.m.
Iowa City Public Library
- **ISU Lab Tour**
November 9, 2017
9:00 a.m. to 2:00 p.m.
Ames
- **Future of Leadership Summit**
November 16, 2017
9:00 a.m. to 4:00 p.m.
Altoona

For more information on these and other similar events, please visit www.ciras.iastate.edu/events.asp.

RETIREMENT



Jim R. Poe, CIRAS project manager, retired this summer after nearly six years serving Iowa business and industry.

Jim came to CIRAS in 2011 after building a broad base of industrial expertise. Jim spent 40 years involved in new product design and manufacturing, especially in the metals, wood, and fabric industries. In every job, he worked to strengthen the company’s overall performance, growth, and profitability through improvements in safety, quality, and productivity.

At CIRAS, Jim helped small companies learn the basics of operating a manufacturing business. He worked tirelessly to help firms develop and implement safety plans and create new layouts for their facilities.

Jim departs CIRAS with the sincere respect of his coworkers and clients. We wish him well.

CONTACT INFORMATION



Since 1963, we have delivered proven services to enhance the performance of industry. Our approach—Engage. Educate. Embed.—creates specific solutions that allow each business and its community to prosper and grow. Coupled with a satisfaction guarantee, our typical client has achieved a 200% ROI. Clients have reported an economic impact of more than \$2 billion over the past five years.

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GROWING YOUR BUSINESS

CIRAS Has Tools to Find New Technologies or New Markets

By Shankar Srinivasan

Earlier this year, Deere & Co. announced the \$4.88 billion purchase of Wirtgen Group, a German company that makes construction equipment used in building roads. Analysts touted it at the time as something that would help the farm machinery manufacturer diversify and ease its dependence on agriculture.

Why is this important? Because it illustrates the realities of growing a business: there are only two real paths to do it in a lasting way—creating new products and/or finding new markets.

New technologies may be able to help you with both.

CIRAS, as the Iowa affiliate of the federal government's Manufacturing Extension Partnership, has exclusive access to two valuable tools—technology scouting (TS) and technology-driven marketing intelligence (TDMI). These are processes designed to help manufacturers find new technologies so they can create new and innovative products that wouldn't be possible any other way. (One recent example involves an Iowa company that's investing \$10 million in new technology to create a new product that's expected to boost sales by 25 percent.) At the same time, CIRAS is helping companies innovate in a different

direction by finding new markets and new applications for existing products.

Both TS and TDMI can help companies understand what is viable and where competitors stand in relation to a given technology. Iowa companies use this information to help allocate manpower and resources effectively. The knowledge helps them avoid costs, gain efficiency, and make better investment decisions.

Markets for both consumer and durable goods are showing an increasing demand for innovative, customizable, and smart products. Manufacturers need to account for this demand while planning investments for new product development. At the same time, no company can think solely about the future.

TDMI is a perfect tool to help you find the middle ground. Expanding the market for existing products can provide important cash flow while companies manage longer-term efforts to develop those new technology-intensive products that customers want.

➤ **For more information about how TS and TDMI tools could benefit your company, contact Shankar Srinivasan at srigshan@iastate.edu or 515-290-6702.**