For Bud and Jean Clem, owners of Western Trails Cowboy Foods in Bozeman, Montana, contracting with Montana’s Mission Mountain Market (MMMM) in Ronan fulfilled a long dream. They finally put the Made in Montana label on their specialty Rustler’s Bean Sauce, a flavor enhancer for making baked beans and delicious barbecue sauce.

The Clems are long time Montana residents. They created the recipe here and have sold it primarily in Montana for 10 years. But because the sauce required special cooking equipment, it has been made in a commercial kitchen outside Montana – until now. See www.cowboyfoods.com

When I stopped by the new MMMM commercial kitchen to visit with Lora Poirier, the kitchen manager, about a cost analysis performed by MMEC, I found Jean in the kitchen, her eyes just twinkling beneath the protective hair bonnet at the prospect of now marketing the sauce as Montana Made. I found Bud stirring a huge simmering pot of sauce, after he and Lora made adjustments to the recipe.

From garlic to grains, sauces to syrups, specialty food manufacturers find just this kind of personalized help introducing foods into the marketplace, getting assistance in preparing their product in quantity, and learning to grow fledgling specialty foods businesses at Mission Mountain Market.

"With health and food safety regulations, especially since Sept. 11, you really cannot process foods for resale in your own kitchen. Setting up a separate commercial kitchen is difficult because of regulations imposed by USDA, FDA, state and county governments, not to mention costly."

In addition to kitchen use, clients can get help with food labeling requirements, barcoding that vendors may require, and sanitation standards. They have access to a wide assortment of commercial size equipment that would be cost prohibitive for small processors.

For instance, the Market’s 40-gallon steam cooker costs $6-7,000. That’s a pretty large investment for a small producer and occasional use. The steamer’s ability to do a high volume and its efficient bottom mount piston filler for bottling also cuts processing time significantly, she noted. (Cont. on page 6)
Director’s Comment...

Crucial Issues & “The New Way Of Life”

We are facing a new world where international and national events will affect us more than ever. Manufacturers are facing a very different business climate that will require different technologies, procedures, and strategies. In a related article in this issue, “Critical Issues Facing Montana Manufacturers,” I described several key observations from the latest UM Bureau of Business & Economic Research survey of Montana’s largest manufacturers. After a year of significant economic downturn, the news was mixed. The year was further complicated by a topsy-turvy energy situation here in the West and the shocking events in the fall that caused a significant drop in fourth quarter business.

Nothing, it seems, is quite as predictable. Most are optimistic for 2002, yet the business climate is now different. Manufacturers are more concerned about potential shortages of qualified, skilled labor; energy availability and cost; stiff international competition; and shifting national priorities. A few manufacturers will invest in new equipment and/or expansions over the next year or two, however, most will look for ways to improve efficiency and productivity to get more out of what they currently have. The issues you face are not unlike that of other manufacturers; manufacturers can learn from each other today more than ever.

Networking with other manufacturers, staying abreast of current and emerging technologies, and focused strategic thinking have become a way of life -- the new way of life for manufacturers. Here in Montana there are opportunities to have your voice heard and share your experience. The state Chamber of Commerce has three regional meetings of the Montana Manufacturing Council planned to build membership and goals for that important organization. Great Falls will host the first on June 25; Kalispell on July 15; and Bozeman on August 13. The potential from this organization is huge to present a united voice in areas like legislation, transportation, workforce and insurance issues, but your participation is paramount to its success. Afterall, it is your organization.

Our biennial, statewide manufacturing conference Compete Smart, is planned for Missoula this year on October 3 and 4. It will be a blend of learning, sharing, and networking with fellow manufacturers and service providers. The Council is one of its co-sponsors. Our keynote speaker promises to be a refreshing surprise, and our breakout sessions will offer some ideas for your next step. I hope you will set aside some time to attend, get some new ideas, and build new contacts. Join the new way of life.

Steve Holland
MMEC Director
Improving the Competitiveness of Montana Manufacturers

More From Quality Products

Looking over vigilance procedures, Kent Ferguson (right) of Quality Products in Missoula had more to say about MMEC’s Kreg Worrest (left) who helped the company locate special polypropylene film for the Marathon Sterilization Pouch. "Kreg provided us with invaluable knowledge in CE Marking and FDA regulations. Without it, we’d be dead in the water.”

Crucial Issues Facing Montana’s Manufacturers

by Steve Holland

The Bureau of Business & Economic Research at The University of Montana-Missoula began an annual survey of Montana’s largest manufacturers in 1999 and recently released the results of the 2001-2002 Survey. The report notes, “According to last year’s survey, 2001 was not expected to be a particularly good one, and results from the 2001 manufacturers survey indicate the year was, indeed, a difficult one by most measures.” The report concludes that the news was mixed.

“In the face of this downturn, it was interesting that more than 30 percent of the firms contacted reported experiencing a significant shortage of workers at some time during the year,” the report says. However, “more than 50 percent of them reported making major capital expenditures during the year. In addition, 25 percent of them introduced major new product lines.”

Based on statistically valid methods, the Bureau’s survey fits with what Montana’s manufacturers are telling us here at the Center. Generally, Montana’s manufacturers experienced a significant drop in business in fourth quarter 2001. A few report that the weakness in Q4 made 2001 equal to 2000, or no growth. Most, however, report that 2001 was lower than 2000. Most also report that 2002 is back up, but the business climate is now different. Customers are carrying lower inventories while forecasting 2002 will be equal to or better than 2001. The result is shorter lead times for manufacturers, more difficulty planning capacity and production, and higher in-process inventories for manufacturers. In the other extreme, some manufacturers report much higher business this year, while a few continue to struggle with Q1 looking like Q4 2001. Merger and acquisition has been hard on the communications and food manufacturing industries. Still, most remain optimistic about 2002.

A few manufacturers report that they will invest in new equipment and/or expansions over the next year or two; however, most will look for ways to improve efficiency and productivity to get more out of what they currently have. They will need to invest in their workforce because new skills will be required, new procedures and expectations must be taught, and skilled labor will continue to be scarce. The news for manufacturing is mixed; the business climate has changed.
Manufacturers Participate in Center’s First-Ever Videoconference Training

MMEC’s first-ever Videoconference Training Series, "Manufacturing Essentials for Profitability," was well-attended by Montana manufacturing companies in May and June. More than 70 manufacturing participants attended multiple live, interactive, two-hour manufacturing-oriented training sessions.

Participants attended the training via eight statewide METNET satellite videoconference sites, allowing them to view the presentation, the speaker, and those asking questions or commenting. Voice-activated microphones enabled each participant to interact with the group, most of whom were hundreds of miles away. In all, MMEC delivered six training sessions.

As part of the new LEAP (Learn-Evolve-Act-Profit) training initiative, this new delivery method gave MMEC an opportunity to expand its offerings across the state to reach more manufacturers with each presentation and gain additional feedback on training needs. In addition, this first series allowed MMEC to explore the value of using METNET technology as another option for delivering training to Montana manufacturers.

The videoconference series focused on manufacturing principles and practices and delivered valuable foundational manufacturing management information to existing and start-up manufacturers. The series included financial models and ratio analysis, setup reduction, lean manufacturing, repeatable quality systems, value stream mapping, and project management. Field engineers from MMEC presented the material and were available for live, interactive Q&A with those attending at the presenter site and distant locations. Special METNET technology enabled participants to work step by step on worksheets related to each topic while hearing and seeing the instructor and the progression of each example via screens in the classroom. Advancements in the technology give this type of learning tool much the same feel as in a classroom where the instructor is physically present and places activity sheets on an overhead projector.

The videoconference format minimized travel obstacles for many manufacturers and allowed MMEC to deliver each topic to a broader array of manufacturers statewide at one time. According to videoconference feedback, 77% of attendees indicated that distance traveled played a "significant role" in their decision whether to attend a training event.

Some of the inherent challenges with this form of delivery were addressed and improved upon as the series progressed. Improvements included greater coordination between the sites during questions and answers and making sure that the main camera alternated appropriately between the presenter and the visual presentation. After the first session, a closing Q&A period was added for questions that may have been missed during the presentation.

Because this is the first time MMEC has offered this training in a videoconference format, we want to assess its viability as a future training delivery option.

Attendees were encouraged to offer feedback on the format and the topics presented. Feedback indicated that...

1. The presentations met and/or exceeded expectations 94% of the time; 52% exceeding expectations.
2. On a value scale of 1 to 5 (5 being the greatest), presentations were given a score of 3.8 overall.
3. Over 80% of attendees felt they could apply the training directly to their business.
4. A total of 70% would be more likely to attend future videoconferences based on this experience.
5. Nearly 60% indicated interest in additional in-depth training on topics presented.

Eight participating videoconference site cities included Billings, Bozeman, Butte, Great Falls, Havre, Helena, Kalispell, and Missoula.

If you have any comments or questions about manufacturing videoconference training, please contact Kate Bryan at 406-994-3812 or kbryan@coe.montana.edu.

Think About It...

Small manufacturers make up approximately one-third of the defense supply chain.
Train and Retain
Turnover is More Costly Than You Think!

by Kate Bryan

Employee turnover at any level of the organization can be disruptive to your business. Lost productivity and additional training can be very costly. So when you’re training an employee, it’s also important to keep an eye out for retaining that employee, thereby protecting your investment.

This is especially true for small to medium size manufacturers in rural states like Montana, where finding replacements can be time-consuming and costly. You know that turnover is a real cost to your business, but have you ever wondered just how costly?

The Industrial Technology Institute’s Network for Manufacturing Excellence analyzed turnover cost from a variety of studies, and developed baseline statistics on expected turnover cost by manufacturing job type. The results are eye-opening.

The statistics took into account turnover costs in the following cost categories:

- Exit Cost of Previous Employee
- Lost Productivity
- Recruiting Costs
- Quality Problems
- Employee Cost
- Customer Dissatisfaction
- Orientation Cost
- Lost Expertise/Knowledge
- Training Cost
- Supervisor’s Time for Turnover
- Wages and Salary While Training
- Temporary Replacement Cost

The combined statistical ranges are intended to reflect what has been generally reported when turnover costs are analyzed. This information is meant to be used for benchmarking purposes, with the understanding that the costs for a specific job in a specific organization may vary from these statistics.

So as you develop and train your employees, investing in them and your company, it’s important that employee retention be an important part of your company’s employee relations strategy.

<table>
<thead>
<tr>
<th>Manufacturing Job Type/ Category</th>
<th>Turnover Cost as % of Annual Wage or Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly Nonskilled, Hourly Production Line Workers, Clerical/Administrative</td>
<td>30-50%</td>
</tr>
<tr>
<td>Skilled Hourly, Professional (sales representative, accountant)</td>
<td>75%</td>
</tr>
<tr>
<td>Technical, Supervisors/Team Leaders, Middle Managers</td>
<td>100-125%</td>
</tr>
<tr>
<td>Engineer, Specialist</td>
<td>200%</td>
</tr>
</tbody>
</table>

Meet the MMEC Board

Filling out the complement of 22 MMEC Advisory Board members is John D. Pickering, Sr., serving as telecommunications representative. He currently serves as Vice President of Professional Services for the Seaquiam Corp., a print-on-demand company out of Amsterdam, Holland. He is a certified Novell Network Engineer, a Microsoft Certified Systems Engineer and has extensive education in business, education and computer science, holding a Ph.D. in Education Administration.

Pickering is an executive with a history of success in designing and implementing technology projects and project management in a large school system, Marietta City Schools, and for Delta Airlines. His 26-year background of technical knowledge and sales experience also includes projects for Oracle, Peoplesoft, JD Edwards, and others.

Our admittedly large board helps keep the Center focused on doing what it does best – helping manufacturers to succeed and be competitive today. Half the membership are Montana manufacturers who provide real-world insights into issues and interests from the manufacturer’s point of view. A number are economic development partners hosting the outlying MMEC field engineer offices. Each is committed to building manufacturing. Three are legislators who value the business community, and another represents the Governor’s Office and building the Montana economy.
Specialty Foods Makers
(continued from page one)

The selection of processing equipment includes mixers ranging in size from 5 to 60 quarts, a dough cutter, roller, proofer and convection ovens, both the 40-gallon and a 30-quart steam kettle, a brasier cooker, mixer cutter, dehydrator, pasteurizer, cider press, cherry pitter, meat slicer, grinder and sausage stuffer. The packaging area has a bag sealer, shrink wrap system, vacuum pack machine and auger filler. Clients often process their own product in the kitchen, but a growing kitchen staff can also process foods from client recipes, freeing up time for owners to pursue other business necessities. As an added benefit, raw ingredients and packing supplies can be ordered and sent directly to the Market, reducing storage requirements and transport hassles.

Additional Help
In the food lab, measures of moisture content and nutritional analyses are performed. A cooperative agreement with Washington State University food testing laboratories provides testing from one convenient resource. WSA is a process control authority for safe processing of low acid and high acid foods and extremely dense items like garlic. It can test food safety.

Poirier is very familiar with the kinds of equipment needed and issues and hurdles encountered in specialty foods manufacturing. She operated a commercial kitchen in Idaho for 20 years before coming to MMMM. She has attended extensive regulatory schooling and brings a knowledge base to clients that might otherwise discourage even the most creative cook from moving into the commercial arena.

Staying abreast of the health and food safety regulations requires a major time investment. Her expertise is another draw to using the MMMM facility as well as a huge time saver. She estimates that she spends half of her time with regulatory searches and training, the other 50 percent with clients.

Lora Poirier and Debbie Fahlgren processing Rustler’s bean sauce.

What Poirier doesn’t mention is her extreme delight in sharing her expertise to help clients with regulatory issues, recipe problems, and the many time saving secrets that make a difference for small and fledgling companies.

"Lora does such a good job," says Jean Clem. "She knows so much about food safety and regulations."

Jan Tusick, the Cooperative Development Specialist at MMMM agrees, "Lora is a tremendous resource."

What to Charge Customers
Just how does the facility know what to charge for diverse kitchen services to a wide client base ranging from Big Sky Teas to Montana Natural Beef? The Market followed the same type of good business practice they recommend to clients. They had a cost analysis of the MMMM facility as well as a huge time saver. She estimates that she spends half of her time with regulatory searches and training, the other 50 percent with clients.

The first step was a walk through to see the equipment. Overhead costs were then calculated on the horsepower, wattage and/or gas used by each item along with square footage required by the equipment. Combining this data with estimated use time, depreciation and actual machine costs, Erickson derived a generalized cost breakdown by machine.

The analysis didn’t stop there. Next, monthly facility overhead, payroll/benefits, and lease costs were entered to derive a base hourly rate for kitchen use of $10. A fee rate sheet has since been developed that reflects the hourly rates plus costs for specific services such as nutritional analysis, locker rental and other storage, any specialized cleaning, and labeling services.

Cowboy Foods prepared 40 cases of their sauce and found the price of services "very reasonable."

"The analysis is a great tool for developing our co-packing fees. We can explore changes in revenue flow and baseline costs. In use, it’s been pretty realistic," Tusick said.

MMMM went one step further for its clients by having Paddy Fleming, MMEC field engineer for northwestern Montana, add a customer component to the model. According to Poirier, it allows customers to add external costs like materials, shipping, distribution, and desired profit margin into the mix to assist them in final pricing of their product. For more information about the Market, call 406-676-0676.
**Consumers Support**

Montana consumers support Montana products. Most of us are familiar with the Made in Montana logo, but have you seen the latest logo, "Montana’s Choice," identifying products on the grocery shelf? This logo is part of a promotion by the Montana Department of Agriculture and a group of independent food processors to heighten consumer awareness of the availability of food products made by Montana businesses. According to a Dept. of Agriculture news release, there are close to 400 food companies in Montana. They produce meat products, bottled sauces, fudge, condiments, bottled beverages, and lots more. The Montana’s Choice logo points these products out to shoppers.

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**Panel to Explore Tech Transfer**

Growth through Technology Transfer, a panel discussion during the Compete Smart manufacturing conference Oct. 3 & 4, will feature panelists here in Montana who facilitate tech transfer. This breakout session will help you to understand the power of tech transfer and how you can use it to position your company for new markets and strong alliances. You will hear tips on funding sources, surviving the application process, and the importance of marketing strategies. Come explore tech transfer and how it works right here in Montana. Questions will be welcomed.

Panelist Todd Johnson, Director of Technology & Commercialization at MSU TechLink Center, Bozeman, has experience in business and technical fields which enable him to position each technology to specific licensee needs. He works with Global 500 and other companies to build competitive edge by analyzing cost structures, existing production technology strengths and weaknesses, production methodologies, supply-chai constraints and development timelines. Panelist Barry Roose is involved in tech transfer as Special Projects Director at American Eagle Instruments, Missoula, and Arcomac Surface Engineering, LLC. He originates and closes on technology activities and works start-up and spin off technology projects at these companies. He is a life-long Montana resident and, as a former Regional Development Officer for the Montana Department of Commerce, has helped steer a number of Montana companies through securing funds and loan closing. Marti Elder, Marti Elder LLC. Marketing & Management Services, Bozeman, specializes in technology project conception, licensing, and marketing of new products. She helps companies manage intellectual property including trademarks, copyright, patents, and trade secrets. She is a member of the Licensing Executives Society and National Inventor Fraud Center.

Each of these panelists will offer a practical piece of the tech transfer puzzle and help that is available. Plan to attend Compete Smart and take advantage of this and other information packed breakout sessions in Missoula at the DoubleTree Edgewater Hotel.

For more information, see mtmanufacturingcenter.com

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**Irish Markets Opportunity**

The Montana World Trade Center announces an innovative new program for preliminary test marketing and limited product placement into Ireland for items from Montana and other Rocky Mountain/Plains region states. Four categories of products will be considered initially including specialty food/beverage, art, outdoor, and home furnishing. See criteria in greater detail on the website at www.rockymountainmarket.com. Due to program restrictions, no alcoholic beverages, perishable, refrigerated, and frozen products are eligible.

Interested manufacturers should contact Brigitta Freer at MWTC brigitta@mwtc.org or 406.243.6982 immediately to allow for participant selection, presentation to Irish buyers, and anticipated 3-month retail launch in September 2002. Manufacturers need not have prior exporting experience. Closing date for consideration is Friday, June 28.

This unique opportunity has been funded in part by a grant from the Market Development Cooperator Program of the US Department of Commerce and other generous sponsors.

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**COMPETE SMART MANUFACTURING CONFERENCE 2002**

Network w/ other manufacturers

Hear what world class companies do

Choose tools that work

Get energized

Compete more effectively

October 3 & 4 in Missoula

Watch for details!

800-MEP-4MFG
You can grow your business in Montana. The message was clear from industry leaders from three Montana companies addressing participants at the last Compete Smart conference. You said you wanted to hear more stories from Montana companies. We listened.

Montana company leaders will again be featured during the breakfast presentation during the Oct. 3 & 4 event in Missoula. In fact, we’ve packed the 2002 Compete Smart Manufacturing Conference with speakers and presenters who have been in the trenches. They know what works.

You will hear Larry Hall, CEO of S&K Electronics, a tribally owned firm in the Mission Valley, tell about following a different vision and how his company makes it work in this neighborhood we call Montana. S&K Electronics, a full service EMS company, was recently featured in the Wall Street Journal as a model company.

Lori Rydberg, Director of Operations at Gibson Guitar – Montana, Acoustic Division in Bozeman, inspired a company transformation that continues today. Find out what Gibson is doing and why. Hear how she and her support teams are making change work.

Gerald McConnell, CEO, at Jore Corporation and business owner of Precision Sawmill Systems, Inc. in Superior, deals with the obstacles and opportunities of doing business in Montana every day. A dynamic corporate leader, he has management expertise in rapid growth and turn around environments for global business expansions, consolidations, strategic planning and corporate restructuring. Come hear his take on growing your business in Montana.

Breakout sessions will include a panel discussion on Growth through Technology Transfer and three presentations to help you with the “next step” in marketing and sales strategies.

NorthWestern Energy, one of the generous co-sponsors for Compete Smart, will present an information-packed session on managing energy. And Idaho TechHelp, an MEP network partner with MMEC, will share strategies for change.

Check out our three-hour pre-conference sessions on Oct. 3, one on Effective Cash Flow Management and another on Unlocking the Key Elements to Lean Manufacturing with Lego®.

Exhibitors will be on hand to share the tools and services they have for manufacturers. You will partake in a special vendor-hosted reception complete with drawings and door prizes.

Call MMEC at 406-994-3812 for more information or for costs, details and Online Registration see mtmanufacturingcenter.com