Montana Manufacturing Extension Center

Crafting Success through Right Mix of Innovation and Business Assistance

EARLYWOOD

By Deborah Nash, MMEC

Do you know which woods make the best kitchen utensils? Or what’s the best oil to treat those utensils or cutting boards?

Follow Earlywood at https://www.facebook.com/earlywood and you can learn that and more. Earlywood has redefined quality in wooden kitchen utensils through creativity and innovation. Company founder Brad Bernhart shares his thoughts on the characteristics of wood, wood oils, and the latest happenings at his company through social media and on the company website.

Its products are highly-functional, yet beautiful, heirloom-quality and crafted in the inspiring setting of Red Lodge, Mont., a community known for extraordinary beauty, warm hospitality, and artisanship. Earlywood products are sold through the Internet, at craft fairs, and to a few select wholesalers.

As the designer, Bernhart analyzes every detail of the designs and manufacturing process to make sure the final product is not just beautiful, but meets its utmost potential for usefulness. His love of woodworking started as a hobby in college, then as a side business, but always in preparation for a time when it would take shape as a thriving business.

“Before I quit my day job, I already had a website up; products designed, woods picked out, and some marketing materials; I knew it was going to turn into greater sales pretty quickly.”

Dream Takes Shape

As demand increased, Bernhart sought business assistance and financing that enabled him to move into space at an existing custom wood furniture shop.

Proud to be working with a renewable, natural resource, Bernhart notes that “it is through creativity and innovation that we can improve upon such timeless objects as wooden spoons. Especially considering that they have been around since the first time someone ate a meal and didn’t use their fingers!”

The wood for the utensil designs is the perfect material — beautiful, strong and long-lasting. The types used are maple, jatoba, bloodwood, and Mexican ebony, all uniquely suited in the design of culinary tools due to their hardness, density and very tight pores. Hard maple is one of hardest commercial woods in U.S.; it is used for gym floors and bowling alleys.

(cont. on page 3)
Exporting—One of the Best Ways to Grow Your Markets

Do you want to grow your company? Consider beginning to export or expanding your export effort. Exporting is one of the best ways to grow your markets. Often, export markets are much more profitable than domestic markets, which can significantly affect your company’s profitability. Most exporters also report that weathering the ups and downs of the domestic market can be significantly eased by exporting into international markets.

There are many resources available to Montana exporters but navigating them can be confusing. MMEC is initiating a program for Montana manufacturers that are interested in starting or expanding their export market. The program, entitled Exportech, was developed by the NIST Manufacturing Extension Partnership (MEP) and the University of Montana. The program is a proven success. About 600 companies in the U.S. have received assistance from MEP affiliates like MMEC to develop their export plans. These companies have reported an average increase or retention of international sales of $770,000.

One of the other woods I use are about three times harder than maple,” Bernhart says. “They are a reflection of the quality I go for. They don’t soak up water, flavors, or stains—very important in the kitchen.” He gets his woods from a direct importer in contact with sawmills and others in the supply chain. It is kiln dried and shipped to Earlywood.

The company is committed to supporting a reforestation program. For every tree’s worth of wood that Bernhart uses to make his utensils, he donates to have 100 trees planted in the Atlantic rain forest of Brazil.

“Knowing how valuable a component tree is to our world, we want to make sure that the forests that grow the woods we use end up healthier because of us,” the artisan said. Some of the trees used grow in the tropical climates of Central and South America. “That is why we have chosen to plant our trees in Brazil.”

He recommends visiting http://www.plantabillion.org to learn more about the forest and the impressive efforts that are being made to save this vital piece of Brazil.

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Montana State University’s Jake Jabs College of Business and Entrepreneurship is seeking local and regional businesses and non-profit organizations willing to offer students practical business experience in return for research, issue analysis or operational advice during the upcoming fall semester, which runs from Aug. 24 through Dec. 11.

Participating students will be enrolled in “BMGT 463—Entrepreneurial Experience” or “BMGT 475R—Management Experience.” Both are senior-level courses taught by Gary Bishop, associate teaching professor of management. Bishop said the entrepreneurial experience course is primarily focused on new start-up organizations or small, locally owned businesses. The management experience course focuses on more established businesses, as well as civic and non-profit organizations.

During the four-month courses, students will help manage special consulting projects requested by area businesses and non-profit organizations. Past projects have included developing business and marketing and financial plans, identifying ways to improve businesses, suggesting solutions to problems, rebranding businesses, developing websites and social networking sites, market and competition analysis, sales analysis, feasibility studies, assisting with human resources and customer services issues, developing employee training and handbooks, and other business and management processes.

Businesses and organizations that wish to participate in the fall fill are invited to apply to the MSU Jake Jabs College of Business and Entrepreneurship. Applications are due by Aug. 7.

The college also has an internship program known as Student Entrepreneurs in Action. As part of the program, local businesses and organizations may apply to host a college intern from the program to work with the business or organization for 10 to 20 hours per week. In some instances, the student may work with the business or organization at no cost.

Application materials for both programs may be obtained by contacting Linda Ward at 994-1995 or lward@montana.edu, or Gary Bishop at 994-7017 or gbishop@montana.edu. More information also is available at http://www.montana.edu/business-ex-center-for-companies.html.

MSU Business Students to Consult for Experience

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“Like other small business owners, he’s pretty isolated,” Shyne said. “One thing we are able to do that really helps a business is validate ideas. Clients appreciate it, because they don’t know if a business is pursuing profitable projects or not.”

Shyne of MMEC said, “He was very interested in receiving input and advice. As a Mechanical Engineer, he knows a lot, as evidenced in the fact that he had deployed advanced woodworking tools, demonstrating that he knew how to spend wisely and had already made some good decisions.”

In fact, Bernhart graduated from Montana State University with a Bachelor of Science in Mechanical Engineering. He worked remotely for eight years for a company in Portland designing woodcutters’ heads, the biggest in the world, for scaring vessels before returning to his dream to build a successful business enterprise in Montana.

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“Like other small business owners, he’s pretty isolated,” Shyne said. “One thing we are able to do that really helps a business is validate ideas. Clients appreciate it, because they don’t know if their decisions are the right ones. Based on best practices, we can point out what’s working well, where opportunities exist, and provide more ideas.”

The big constraint in a one-man shop is time for both making and selling product. “If you’re making things, you can’t be out selling; if you’re selling, you can’t be making product,” Shyne explained. Brad needed to take it to the next level, and MMEC advised him to get a student helper or other employee.

Inventory Management Critical to Manage Growth

Before designing the initial site, MMEC identified the need for a system to manage inventory, including raw materials, work in process, and finished goods. Shyne drew up a one-page inventory plan for the multi-step production process showing each step and setup times, how long inventory would take to replenish. Raw material needs, customer order patterns, product flow and layout, and storage needs were all considered for the production system.

The big challenge was spiky inventory from seasonal and show demand. “We built an extensive spreadsheet to help him know what to make and how much to have on hand, replenishment strategies, and a better understanding of what quantities to hold in finished goods,” Shyne said. The inventory model, a living document, requires inputs for continued accuracy and decision making.Brad took ownership and took it to the next level.

To stay ahead of anticipated demand, Earlywood would need to gain efficiencies to be prepared and fully utilize its facility. MMEC provided standard Lean Manufacturing and Plant Layout Assistance to help maximize the potential in the existing facility. The facility layout is a non-architectural, oversized drawing that includes optimal equipment arrangement, utility locations, raw materials, waste materials, and external building requirements (i.e., traffic lanes, parking). It is based on all inputs, interviews, optimizations and tradeoffs with the discussion.

A Capacity Analysis tool was used to select the optimal equipment arrangement, estimate resource needs, equipment costs, and other estimates. MMEC also helped establish a productivity measure based on dollars per eight-hour day. Time was spent on budgeting and changeover areas to optimize for Earlywood’s unique situation and looked at the balance of raw wood vs freight costs, Shyne said.

Now System Manages Itself

“Before the inventory system was in place I was chasing my tail,” Bernhart recalled. “Inventory was in two locations, and he would go between those two to quickly scan for what was needed. He had lots of scratch paper, would ballpark needs, and had lots of to-do lists,” he said.

At craft fairs, he used to sell most of his inventory, constantly running out and补充ing inventory. Earlywood needed a system to manage his inventory. Bernhart said, “The best thing about those guys [Shyne and Todd Daniels who is working with him on a current project] is that when I would call on phone, they understood what I was talking about with very little explanation. They knew where I was going and where I needed to go. MMEC is outstanding in that aspect — experts in that field. As a result they did exactly what I needed.”

At this stage, Bernhart said he is “over the hump” of knowing whether the business can make it. Web and consignment customers make up about half of sales, wholesale and craft fairs are the remainder. New designs are always in the works, and he blogs through his website, a great spot for the culinary inspired. You can follow Earlywood on Facebook.

Earlywood (continued)

timely fashion. “Now the system tells my employee what to do. It saves me time like crazy.”

While the system is helping manage for growth, the biggest benefit is that it has freed up Bernhart’s time to work on marketing efforts and keep up with culinary bloggers. He contacts them, sends a free product; they write about it, and it generates sales. “You are never finished marketing. I have just the one employee; it’s me for everything else.”

The inventory management system has been fully in place for about four months, and Bernhart reports that he has never run out of anything since. Before it would have been a half day spent actually running out of supplies.

When asked how his interactions with MMEC were, Bernhart said, “The best thing about those guys [Shyne and Todd Daniels who is working with him on a current project] is that when I would call on phone, they understood what I was talking about with very little explanation. They knew where I was going and where I needed to go. MMEC is outstanding in that aspect — experts in that field. As a result they did exactly what I needed.”

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Each utensil is laser engraved with Earlywood logo.

In mid-June, the US Treasury Department announced an award of $4 million in New Markets Tax Credits to the Montana Community Development Corporation. With the award, Montana CDC will continue to fund businesses start-ups and expansions in Montana and Idaho that create jobs and significant community impact.

New Markets Tax Credit specialists are part of its lending team, which handles all aspects of business lending, including underwriting, loan portfolio analysis, and development of new products. The consulting services are through its Small Business Development Centers (SBDC) team, assisting Montana entrepreneurs at every juncture, from start-up to expansion, and through specific business challenges, including accounting, marketing, and purchase of existing businesses. It can also connect clients with other business resources such as the Montana Manufacturing Extension Center. MCDC typically delivers financing to people who cannot access traditional bank financing but show a strong likelihood of repayment based on character, credit worthiness, past performance, and future projections. Its loans do have a slightly higher interest rate, and the terms and structures vary depending on the client. It also offers lines of credit. The organization can assist entrepreneurs with student loans and also bank partnership and bank participations, and augments with business development services during the application and over the life of the loan.

Since 2009, Montana CDC has used the tax credits to fund 22 projects totaling $256 million. Projects include the Bullhook medical clinic in Havre, the new Universal Athletics headquarters in Butte, and the tribal government building on the Fort Peck Reservation in Poplar. New Market Tax Credits are for development projects that are $4 million or larger in low-income areas. For a listing of projects, call 406-728-9234 today to find out if it qualifies for NRTC financing.

Read more about the award in the About Us dropdown “News and Reports” section at http://mtdcc.org.

Montana Manufacturing Extension Center

The Montana Manufacturing Extension Center (MMEC) is a state-industry partnership that grows Montana’s small and medium-sized manufacturing and processing businesses that have suffered or are suffering losses due to state and federal loan funds to assist wood product and wood processing businesses that have suffered or are suffering economic hardships. The Department administers two different revolving loan funds, one funded by the State of Montana and one by the US Department of Commerce – Economic Development Administration. These programs provide a long-term affordable lending tool to assist businesses in retaining or creating jobs, providing a long-term economic benefit to the state of Montana.

Learn more at http://businessresources.mt.gov/WPRLF and how to apply for a loan. Contact Carolyn Jones, Section Manager, 406-841-2594.
Manufacturing News

Celebrating 50 Sweet Years — Western Bee Supplies, Inc., http://www.westernbee.com/ in Polson, celebrates 50 years in 2015. The beekeeping industry has and still is going through many changes. Western Bee has ridden those cycles since 1965, innovating and expanding into new markets that help utilize all of its renewable resources responsibly. Besides providing the highest quality woodware available to beekeepers, Western Bee provides other beekeeping supplies from bee packages, containers of all shapes and sizes, to foundation, to bee medications and extractors through its e-store.

GTUIT Quality System Now Certified

GTUIT, LLC, http://www.gtuit.com has earned its ISO 9001: 2008 Certificate from the registering body TUV USA for establishing and applying a quality system to its operation. GTUIT is a design, development, and manufacturing company providing mobile flare gas capture technology for the oil and gas industries, remote NGI extraction, and gas conditioning processes.

Two-story BrewPub in the Works for Missoula

The owners of Lolo Peak Brewing Co., http://loolopeakbrewery.com plan to build an 8,000-square-foot, two-story brewpub and restaurant in the heart of Missoula at the Old Sawmill District http://oldsmithweldistrict.com just a stone’s throw from Ogren Allegiance Park and the Clark Fork River. Read more at http://www.mtltt.net/article-68715.html

New Exec Joins Prospera Business Network

The Prospera Business Network Board of Directors and staff are pleased to welcome Paul Reichert as the new Executive Director of the organization. Paul has over 20 years of nonprofit and community development experience in Montana having served as the Executive Director for both the Helena and Bozeman Downtown Business Associations and as the agency director for the Montana Heritage Commission. His diverse accomplishments in local community development in Montana will be a strong asset to the business clients, entrepreneurs and local governments that Prospera serves in Gallatin and Park Counties. Prior to joining Prospera, Paul served as the Senior Manager of Park Programs for the Yellowstone Park Foundation, a nonprofit fundraising organization that supports programs in Yellowstone. Paul is a graduate of MSU Bozeman.

Family Business Day - SAVE THE DATE — October 23, Bozeman

Plan to attend the annual MSU Jake Jacobs College of Entrepreneurship and Business event to celebrate, mentoring and successful family businesses and the hearts of the family who have sustained them through generations here in Montana. Awards are based on multi-generational family business involvement and longevity, preparedness for succession, community and industry contributions, and innovative business strategies. The program is sponsored by State Farm Insurance with the awards being underwritten by Stockman Bank; additional program and industry contributions, and innovative business strategies. The program is sponsored by State Farm Insurance with the awards being underwritten by Stockman Bank; additional program and industry contributions, and innovative business strategies.

Export Opportunities Underway in Canada

The Montana World Trade Center (MWTC) at the University of Mont- ana and seven trade delegates recently returned from a week-long trade mission to Calgary, Alberta, and Vancouver, British Columbia, where they developed sales agreements, cultivated new relationships and explored potential opportunities within the Canadian market.

The owners of GTUIT, LLC, http://www.gtuit.com have ridden those cycles since 1965, innovating and expanding into new markets that help utilize all of its renewable resources responsibly. Besides providing the highest quality woodware available to beekeepers, Western Bee provides other beekeeping supplies from bee packages, containers of all shapes and sizes, to foundation, to bee medications and extractors through its e-store.

After 18 years with MMEC and 25 at Mon- tana State University, Deborah Nash is retir- ing August 1. “It has been my honor and privilege to learn and share stories about the fabulous manufac- turers, entrepreneurs and experts across Montana,” says Nash. “I am looking forward to more time in the garden and with my fly rod.”

Nash has been the marketing commu- nications and event planner for the Center since 1999.

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Get Linked In the MFG NEWS!

Forward Focus, a Newsletter for Montana Manufacturers, is Now Online

Feel free to contact mmec@coe.montana.edu about manufacturing topics or issues that concern you and for your company news briefs. Sign up at mtmanufacteringcenter.com

MSU Offers New Support on Government Contracting

Montana companies interested in doing business with federal, state and local govern- ment agencies will have a new resource for consulting, training and support through Montana State University beginning July 7. The university has hired Jeff Cuskey, a retired U.S. Navy commander and leading expert in government con- tracting, to serve as director of the newly created Bozeman Procurement Technical Assistance Center (PTAC). The service will be based at TechLink and be funded through a cost-sharing cooperative agreement between the Defense Logistics Agency and MSU.

Cuskey is coming to Bozeman from his position as senior procurement specialist with the Monterey Bay PTAC. He has more than 25 years of experience in federal and defense acqui- sition, contracting, program management and business financial management. During his 20 years of active duty service with the U.S. Navy, Cuskey served as a contract specialist at the Defense Contract Management Agency, and as procuring con- tracting officer and business financial manager for two of the Navy’s largest fighter aircraft programs.

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The training and assistance provided by PTACs is usually free of charge and includes helping businesses with required registrations, identification of contract opportunities, help in understanding requirements and in preparing and submitting bids. The lead agency is the Billings PTAC, hosted by Big Sky Economic Development. The Bozeman PTAC is one of nine PTACs located across the state of Montana; it will serve five counties, including Broadwater, Gallatin, Lewis and Clark, Madison and Park.

Part of MSU, TechLink is funded by the Department of Defense to establish licensing and other technology transfer agreements with US industry. TechLink is one of several MSU offices that serve to strengthen Montana’s economy: Montana Manufacturing Extension Program provides technical support to the state’s manufacturing base, the Montana Agricultural Experiment Station provides valuable research to the state’s farmers and ranchers, MSU’s Technology Transfer Office works with Montana companies to commercialize university re- search discoveries, MSU’s Optical Technology Center, OTC, has played a role in the creation of dozens of laser and optics companies in the state.

For more information on the Montana PTAC, go to http://www.montanaptac.org.
**MMEC Support Staff**

Paddy Fleming
Director

Jenni West
Associate Director

Deborah Nash
Newsletter Editor/Public Relations

Shelby Wieczorek
Student Assistant

**UTAP Staff**

William Hamel, Industrial Engineer

**MMEC Mission**

Providing systems and solutions to help Montana manufacturers innovate, plan, perform and grow.

**To Visit Your Area MMEC Field Engineer**

Call 406-994-3812

**Check Out Upcoming MMEC Training for Manufacturers!**

**TUESDAYS with Todd**

(2nd Tuesday each month — July 14 through December, 2015)

Bozeman, MMEC Conference Room, 1-4 p.m.

Customize your selection of half day workshops and sharpen your operations management skills:

- Lean Overview – July 14
- Lean Office – Aug 11
- Root Cause/Problem Solving – Spt 8
- Planning for Growth – Nov 10
- Risk Management – Dec 8

[http://www.etouches.com/128771](http://www.etouches.com/128771)

**Lean Enterprise Bronze Certification Program**

Bozeman, MMEC Conference Room, every Friday for 10 weeks starting Aug. 21

Why 10 weeks? 80 hours of required training and education; three tactical project to apply Lean principles, required readings, quizzes, and a Final Exam proctored by MMEC that lead to a nationally recognized SME credential.

Cost $2,500 w/exam.

[http://www.etouches.com/112750](http://www.etouches.com/112750)

**AS9100 Rev C Internal Auditor Training Workshop**


As part of your management system, conformance to the AS 9100 standard helps meet customer expectations for quality, attracting new customers and retaining others in Aviation, Space and Defense organizations.

Cost $985 per person and includes copy of the standard.


*MMEC events offer 10% discount to Montana Chamber of Commerce/Mfg Council members.

**Don’t Miss Jon Tester’s Annual Small Business Opportunity Workshop!**

**“Hitting Your Stride: Turning a Montana Small Business into a Montana Success”**

Friday, July 17, 8 a.m. to Noon

MISSOULA – University of Montana, University Center Theater

Planning is underway for this Small Business Opportunity Workshop.

Please join Senator Jon Tester, small businesses and service providers from across the state for this informative half-day session.

To register contact Senator Tester’s Missoula Office 406-728-3003