UMaine Inaugural Student TREE Trip To Finland - Total Success - Planning Underway for 2015 Trip

by Jon Lee, Chemical Engineering Junior from Madawaska, ME

The pulp and paper industry knows no boundaries. Nine students from the University of Maine’s student chapter of TAPPI/PIMA got to experience this firsthand in May as they were given a once in a lifetime opportunity to travel abroad partaking in the inaugural TREE (TAPPI/PIMA Research Expedition: Europe) trip to Finland. Over the course of 12 days, the students were exposed to 16 locations including facilities belonging to Metso, Sappi, UPM, BASF, Metsa, Kemira, Thermo-Fisher Scientific and Andritz. Students toured the facilities and viewed presentations that explained each site’s purpose and unique innovations. Each host company showed incredible hospitality to the visiting students.

After a long flight and an extended layover in Amsterdam, the students flew to Helsinki where they got their first taste of Finnish culture, experiencing the food and confusion when the sun just didn’t seem to set. The first day of tours consisted of Thermo Fisher Scientific and Metso Automation’s valve plant, both in Vantaa as well as Metso’s Pilot Plant in Jarvenpaa. Students viewed the production line of the valves, from foundry to the final painting step, as well as the calendaring pilot facility. The following day, students visited Kemira water treatment in Espoo where Kemira shared some of their new water technologies and gave a tour of their laboratories. Following Kemira, students travelled to Aalto University to converse with students majoring in forest products at the University. Students from both schools hit it off comparing and contrasting lifestyles and curriculum. UMaine students even found a copy of their beloved “Smook Book” in the library, a familiar blue book used as the pulp and paper textbook. The weekend was spent in Helsinki where the students experienced Finnish dining as well as culture with the Aalto students as their tour guides.

On Sunday, they took the ferry to the island of Suomenlina off the coast of Helsinki which served as a fortress during early conflicts between Sweden and Finland.

The second set of tours began and several paper mills were visited including Sappi Kirkniemi, Metsa Board Plant Tako, UPM Jamsankoski, UPM Kaukas, and UPM Kymi. Students were able to compare and contrast Finnish mills with a variety of Maine mills. Within the mills there were

Executive Director’s Wire - continued page 2

Executive Director’s Wire
by Jack Healy
Thirty years is a lifetime of commitment. 30 years ago Ronald Reagan was president, Joe Brennan was Governor of Maine, I was an air quality engineer at James River in Old Town, Candace and I were just expecting our first son - Patrick, and a world series championship was not even a glimmer in the eye of the Boston Red Sox.

We have been fortunate to have Faye Woodcock Murray work at the Foundation for the past 30 years. She has survived five Executive Directors (some two or three times). She has seen thousands of students pass through the halls of Jenness, and recently has been seeing the children of some of those students attend Consider Engineering and even receive the Pulp and Paper Foundation Scholarship.

Having been with the Foundation for 30 years, and on campus for 36 years, Faye knows every department and everyone in those departments. Faye has been generous with me over the last seven years sharing her knowledge of and the ins and outs of campus politics, and who are the go-to people. Faye knows who to call, and how to get things done.

Our students are very grateful for Faye’s time, effort and shoulder to lean on. At every juncture Faye encourages our students, keeping them positive, or helping them to see the bright side of a situation. It is not uncommon that the college experience will be the first time that a student who was at the top of his or her class in high school is now competing with many students in our engineering program just like themselves – in many cases it is the first time our students have received a grade of c-, or maybe didn’t get picked first during co-op interviews – Faye is frequently there for the students to tell them it will be OK, your grades will improve, or your co-op time will come. She also works hard to assure areas of concern get addressed by arranging for tutors, or advocating for a student with a co-op employer. Faye’s guidance to our students regarding resumes has helped
Scholarships Awarded to 87 Students at Foundation’s Fall Banquet

Each September marks the start of a new academic year at UMaine. For scholarship recipients the month is a whirlwind of activities including resume writing seminars, co-op introduction seminars, AIChe and TAPPI/PIMA meetings and the Foundation’s annual fall banquet.

The banquet gives students the opportunity to become reacquainted with each other and to meet Foundation scholarship committee members and company representatives who are interested in hiring our students as co-ops and permanent employees. The banquet is also a wonderful opportunity to welcome incoming first-year scholarship recipients and to introduce them to our upper-class students and guests.

This fall, more than $225,000 was awarded to upper-class scholarship recipients with an additional $85,624 payable to first-year scholarship recipients at the completion of their fall semester. By class, the Foundation is supporting 18 seniors, 21 juniors, 22 sophomores and 24 first-year students.

By field of study 55 students are studying chemical engineering; 17 students are studying mechanical engineering; 6 students are studying electrical engineering and 3 students are enrolled in bioengineering. There are 2 students studying civil engineering and electrical engineering technology, 1 student studying forestry and 1 student in computer engineering.

Scholarship Committee Chair, Lee Marshall welcomed scholarship recipients, company guests and scholarship committee members to the banquet.

The keynote speaker was Addie Nadeau, Senior Sales Consultant, AxChem USA, Inc., who “blew everyone away” with her talk on “Image”. Addie spoke without notes, was crisp, positive and engaging. Her image lessons on networking, saying thank you, taking feedback positively, and to not burn bridges was right on the money. A number of students went up to her after the event to thank her for her talk.

The evening concluded with members of the scholarship committee and our industry guests presenting students their fall scholarship checks. (Pictures are available on pages 8 and 9 of this newsletter.)

If you know of a student who will study engineering at UMaine and has an interest in our industry, please encourage them to apply for a scholarship. Applications are separated into incoming and upper-class categories. The deadline for applying for first year students is December 31st, and the deadline for upper-class students is March 30th. Applications have been mailed to all Maine schools as well as being available on the Foundation’s website at www.mainepulp-paper.org. If you have questions, please call the Foundation office at 207/581-2297.

Addie Nadeau, Senior Sales Consultant, AxChem USA, Inc., (standing) was keynote speaker at the Foundation’s fall scholarship banquet held in September. Addie talked to the students about their personal image, focusing on networking, saying thanks, taking feedback positively, and not burning bridges. Addie’s talk blew everyone away according to ED Jack Healy.

Continued - Executive Director’s Wire

many of our students meet the high standards expected by employers and helps set them apart.

Faye makes sure our students are well fed at Chinn Seminars and at Consider Engineering. She has moved away from pizza at every venue, to Chinese food, barbecue, or turkey dinners – the students have raved about the change-up, and appreciate that Faye is looking out for their dietary best interest. She is also sensitive to those students with vegetarian or other dietary needs.

As we have moved to a more electronic society, Faye has done a great job managing our website, with over 80,000 hits in the past two years, and giving us a presence on Facebook, and LinkedIn. The effort that Faye puts into the co-op program is outstanding – she has developed an on-line calendar so students may sign up for interviews with their cell phones. She makes sure that all companies coming to interview co-ops are comfortable, and have the resources they need. She manages the food for their information sessions, and makes sure there is a welcome sign up on the screen in the lobby for each company. This year Faye stayed late for every company information session to assure that every detail was in place. Faye is the editor of our Dandy Scroll newsletter, and does a great job keeping it interesting, fresh, and relevant.

Faye frequently chides me that to convince her to do things the right way (my way) I will frequently “walk her around the barn”. It has been more than once (many times more than once) that I have felt I am the one being walked around the barn. Over the years Faye and I have learned to work well together like a fine tuned orchestra – with a thousand things happening at the same time during either Consider Engineering, or Paper Days we are able to execute those programs so they are efficient and timely.

The long and the short of it is that Faye is fiercely protective of the Pulp and Paper Foundation and our students, who both rely on her and love her. We have been lucky that Faye has stayed for 30 years, and I have been fortunate to have worked with her for the past seven. Please join me in congratulating Faye Woodcock Murray for 30 years of service with our Foundation. Faye can be reached at: fwoodcock@umche.maine.edu.
many similarities, including the occurrence of holes and breaks and the associated commotion. The major differences were seen in size, lighting and cleanliness; here in Maine an often dark and drippy basement was in there a bright and dry atmosphere. Engineers and tour guides were impressed with the questions each student asked, covering topics on sheet condition, calendaring and energy production. Between the mill tours, students also visited research facilities including Metso Refiner Manufacturing in Valkenoski, Metso Automation, Metso Power Biofuel Pilot Facility, Metso Fabric Factory, Metso Jyvaskyla Paper Pilot Facilities, Andritz Pulp and Paper in Kotka, as well as a BASF chemical facility and Kaolin Slurry Plant.

The experience was truly incredible. Students walked away with a much greater understanding of the pulp and paper process from start to finish as well as a reassurance that the paper industry is global and as strong as ever. Work is currently under way to organize another excursion for the spring of 2015 to Germany and central Europe to offer a similar experience to promising students interested in a career in the pulp and paper industry. A very special thank you to everyone who contributed to the TREE trip, without your support, this life changing experience would not have been possible.

### The Co-op Process - a Students Perspective

**by Kelsy Bolduc and Lexi Deering, ChE Sophomores**

The beginning of our sophomore year marked the start of the co-op process. Between talking to upperclassmen and researching companies, we immediately became excited for what was ahead. Starting in September we saw the plethora of companies coming in and began signing up for interviews. We did research on our own, and attended info sessions to learn more about the companies we were interested in. After signing up for over ten interviews each, we knew it was going to be a long, exciting month.

By the time the first day of October rolled around, it was time for our first interview. As the month wore on, we began to receive our first offers. As more offers started to come, the excitement grew, we knew our decision was becoming tougher. As the end of the month drew near, and all offers were in, we became regulars in the Foundation office. With the help of Jack or Faye, we were able to determine which co-op would be the best fit for each of us. Declining the offers we didn’t want was incredibly difficult because we could so easily picture ourselves at each of those locations as well. But after accepting the offer of our choice, we were so incredibly excited for our futures, we cannot wait for our co-op experience. We know that it will be a great learning experience and will be very beneficial for our future. Without the help of the Pulp & Paper Foundation, this opportunity would not have been possible. Between finding companies, lining up interviews, and offering encouragement, we greatly appreciate all of the behind the scene work that Jack and Faye do to make this process so successful.

Thank you to the following for welcoming our TREE Trip students: Neles Valve Factory; Thermo Scientific; Metso Coater & Calenders Pilot Plant; Aalto University; BASF; Sappi Kirkniemi; Metso Stock Prep, & Refiner Mfg.; Metso Automation Mfg.; Metso Power Biofuel Pilot Facility; Metsa Board Tako Mill; UPM Kaipola SC Mill; Metso Paper Pilot Plants & Headbox; Stora Enso Kaukopaa; Metsa Botnia Pulp Mill; UPM Kaukas; UPM Kymi, Kouvol.

*Jack Healy, Executive Director*

### Pulp and Paper Foundation Road Trip

Friends and supporters of the University of Maine Pulp and Paper Foundation are spread across the country, and last month Executive Director Jack Healy and Senior Development Officer Mike Higgins took to the road to meet with a number of them. They traveled to Roanoke, Richmond, and Atlanta to provide updates on the state of the Foundation and the University, and to thank individuals and companies for their commitment and support.

Dinner in Richmond, Virginia, with Mark and Melanie Cross was an opportunity to thank the second generation of Cross’s for their generous support of the Foundation and the College of Engineering, and for a quick historic tour of downtown. The next morning included a visit to MeadWestvaco Corporation, headquartered in Richmond, an important corporate supporter of the Foundation and a scholarship underwriter.

Atlanta has become a major center for UM graduates, past Foundation scholarship recipients, and individual and company friends of the Foundation. Visits there included supporters at Georgia Pacific, Metso USA, and Nordic Engineering, as well as a very special luncheon meeting with several supporters of the Mark D. Barrett USA Scholarship.

The UM Pulp and Paper Foundation has been supporting the paper industry and the extraordinary professionals who led it for over 60 years. Visiting with friends and donors is an important way of saying thank you for all they do to support the Foundation and its mission.

More trips (both far and near) are planned for the coming year – be on the lookout for one near you!
Every student receiving a scholarship from the Foundation has a story to tell about what that support means, and in many instances the scholarship is a game changer. And for every one of those students, there are another three applying for support as well.

That’s why it’s so important that the Foundation increase its level of funding for scholarships, which allows more students to enroll and succeed at UMaine, and increases the number of highly qualified young professionals prepared to take on the challenges and rewards of working in the pulp and paper industry.

There are two main ways to give to the Foundation.

The Annual Fund provides important financial support to the operations of the Foundation, and helps fund student trips, projects, and special events.

The new Capital Campaign, unveiled last spring at Paper Days, seeks to raise $2 million in new scholarship funds to meet the growing need for financial support of students and their families. The fundraising drive is off to a wonderful start, with gifts of over $200,000 pledged and evidence of great interest among the many friends of the Foundation.

Please consider giving to the Foundation this year – it’s an investment in a great industry, a great State, and great students.

There are several options available to make it easy to donate to the Pulp & Paper Foundation. You can mail your check using the form below or you can make a donation electronically by visiting our website at www.mainepulpaper.org and clicking on the “Make a Donation” tab. Lastly, if you prefer to talk with us simply call the office at (207) 581-2297 and we will take the necessary information and process your payment for you.

“I was happy to become an individual member of the Foundation when I graduated last year - membership is only $50. If all prior scholarship recipients joined me by giving just $50 each year, we could support an additional 17 students with full tuition scholarships! Join me today in supporting our Foundation! Annual membership is $50 - $1,000 per year”.

Richard Qualey, ‘12, is a shift supervisor at Lincoln Paper and Tissue.

As We Approach the End of the Year, Now is a Good Time to Make Your Annual Contribution to the UMaine Pulp & Paper Foundation

**2013 Individual MEMBERSHIP**

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<th>Program Funding OPPORTUNITIES</th>
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<tr>
<td>Four Credit Class</td>
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<tr>
<td>Consider Engineering Camp</td>
<td>$500</td>
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<tr>
<td>Scholarship, 1 credit hr.</td>
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<tr>
<td>Scholarship Banquet</td>
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<tr>
<td>First Year Welcome Dinner</td>
<td>$100</td>
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<td>Individual Membership</td>
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<td>Student Recruitment</td>
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All of the above qualify as Annual Individual Pulp & Paper Foundation Membership.

*Please send me information about establishing an endowed scholarship fund.*

I am interested in making a planned gift through a bequest or a trust.

visit us on the web at: www.mainepulpaper.org
Where are They Now? An Update on Three Former UMaine Pulp & Paper Foundation Scholarship Recipients

Three Chinn Engineering Management Seminars are scheduled for students this fall.

Our fall program opened with “TREE CAP” a recap and overview of the recent student trip to Finland. The seminar was presented by the students who participated in the program last June. The presentation was lively and interesting to all in attendance.

The second seminar is titled “Research Opportunities in the Forest Products Industry” and will be presented by Beth Cormier, VP, Research, Development & Innovation at Sappi Paper N.A.

The third and final seminar of the semester will be held in December and is titled, “Paper and Energy - They Go Together” and will be presented by Glenn Poole, Manufacturing Support Manager - Energy, Verso Paper.

Bill Butterfield, ’76, from Milo, ME, graduated from UMaine with a B.S. in Chemistry and a 5th Year Pulp & Paper Certificate. Bill also holds an M.S. in Material Science from the Univ. of Illinois.

After graduation Bill went to work for Beloit Corp. until 1988 when he joined Stowe Woodward where he worked until 2013. Currently Bill is with Xerium Technologies, Inc., as Chief Technology Officer.

Bill is married with three children and six grandchildren. Bill told us his interests are “church, gentleman farming, and maintaining an interest in golf.”

“My experience at UMaine was filled with excitement and personal growth. My mentors Joe Genco, at UMaine, and Veli Lapanoya at Great Northern Paper, taught me the importance of staying focused on the project at hand. I drank from the trough of knowledge in paper chemistry and learned that the paper industry is amazing”.

Heather (McPhearson) Pelletier, ’87, ChE from Hallowell, ME. Started at James River in 1987, returning to the company I had my co-op experience with. From there I went to S.D. Warren (now Sappi).

At Sappi I have held roles as process engineer, product manager, operations manager and my current position, Marketing Director.

“I can’t believe the opportunities that I have had. With a degree in ChE and the contacts from UMaine I truly believe you can do anything you want to do”.

In my current role in marketing I have spent time with customers like Walt Disney, Macy’s, Dell, L Brands and Time, Inc., as well as visiting manufacturing facilities in the U.S. and Europe. It is the most interesting and diverse role I have had. Best of all, I run into fellow UMaine grads wherever I go and I still return each year for Paper Days.

Larry Ellis, ’03, ChE from Bangor. ME.

After graduating from UMaine, Larry was employed with Georgia Pacific and then Carus Chemical. Currently he is with Procter & Gamble at their Auburn, ME facility.

Larry is married and has 3 children, Liam, Lucas and Logan. In his spare time he enjoys hunting, fishing, camping, his family, and playing with his boys.

When asked about his experience at UMaine Larry told us, “My experience at UMaine and with the Pulp & Paper Foundation was instrumental in preparing me for the challenges I would face in the workplace. The starting blocks that UMaine and the Foundation provided continue to be something I build upon in my career, and will always be something I treasure”.

Students attending the Chinn Seminars are treated to dinner following each seminar.
October is a Whirlwind of Activities for Students - Co-Op/Intern Interviews, Engineering Job Fair and Interviews for Seniors

One of the busiest months of the year for our scholarship recipients is October. Sophomores are busy interviewing for potential co-op or intern positions. Many of our juniors are away on co-op assignments, while others are returning from their co-op assignment and seniors are perfecting their resumes and interviewing for permanent placement positions.

**CO-OP ACTIVITIES**

On the co-op front, 65 students attended our annual co-op introduction seminar and registered to participate in the co-op interview process. Seventeen companies visited UMaine during the month hoping to hire students for available positions at more than 20 Maine and out-of-state locations. In total more than 340 co-op interviews were conducted and as of this writing 43 students have accepted employment offers. We still have a few of our companies in the process of deciding who they want to extend offers to and expect the process to be completed in the next couple of weeks.

Once again this year we offered employers the opportunity to interview first-year students for lab-tech summer employment and intern positions. This proved to be a win-win situation for company members and students as 10 first year scholarship recipients have accepted summer employment with Foundation company members.

The excitement and enthusiasm of our students is contagious as we stand in the background cheering them on.

**UMAINE ENGINEERING FAIR**

This fall has also been a busy interview month for our seniors graduating in May. Eight companies have made arrangements through the Foundation to visit campus to interview seniors for permanent employment positions. As of this writing, two seniors have accepted employment and several are planning on-site visits.

If you have openings and would like to interview on campus please call Jack at the Foundation office, (207) 581-2298, or email to healy@maine.edu.

*Representing Gorham Paper and Tissue at the Engineering Job Fair were (left to right) Joe Rodgers, HR Manager and Denice (Dee) Carsley, ’92, ChE, Technical Manager.*

*Conducting an interview with Lucas Bussell, senior, ChE (center) is (left) Gregg Urban, Manager, Human Resources, and (right) Cecil McDonald, ’97, ChE, Manager of Operations at Rayonier, Jessup, GA.*
Consider Engineering 2013 Huge Success - 103 Students Attended One of Three 4-Day Sessions Held in July

Fourty-four years ago the first Consider Engineering program was offered at UMaine. Today the program is as popular as ever and continues to attract the best and the brightest high school students to apply.

This past July a record 187 students applied and 103 students were invited to participate in one of three 4-day sessions.

The students learned what it will be like to study engineering. Some learned that engineering is not for them. The majority however solidified their choice of engineering as a college major, and that is what Consider Engineering is all about.

Our program is designed to challenge participants, answer their questions and to show them what it will be like to be a UMaine student. The program starts immediately upon arrival with our “ice-breaking” challenges, problem solving challenges and papermaking competition. The pace is set with the program not slowing down until they leave campus following lunch on Wednesday.

Over the four-day period, students meet UMaine engineering professors, meet current engineering students, tour the engineering facilities of all majors offered at UMaine, tour a papermaking facility, complete a construction design competition, compete in our “I AM an Engineer” competition, conduct an experiment and present the results to parents and guests.

Consider Engineering introduces high school students to UMaine and to engineering; and is a proven means of attracting the best students to study engineering at UMaine. Applications for our 2014 program are available on our website at www.mainepulpaper.org. If you know a student completing their junior year of high school, encourage them to apply today.
One of the highlights each fall for our scholarship recipients is our annual scholarship banquet held in September. The banquet is a networking opportunity as the students meet members of the Foundation’s scholarship committee. Also invited are human resource personnel from various Foundation member companies who present scholarship checks to the students who have worked as co-ops or interns for their companies.

Foundation Executive Director, Jack Healy said, “We encourage our students to make use of networking opportunities - it is wonderful to have our student employers at the banquet to interact over dinner with our students. Many of our students make acquaintances they will use throughout their college career and beyond”.

Keynote speaker at the banquet was Addie Nadeau, Senior Sales Consultant, AxChem USA, Inc.
Steve Provencal, Verso Paper’s Jay mill (left) attended the fall scholarship banquet and presented his co-op student with his scholarship check.

Bill Peterson, Human Resources Manager, Lincoln Paper & Tissue, (center) poses with scholarship recipients employed by Lincoln at the Foundation’s fall scholarship banquet held in September.

Dale Wibberly, Human Resources Manager, Sappi, (back row, second from left) is pictured with scholarship recipients who are employed as co-op’s or interns at Sappi’s Somerset mill.

Steve Provencal, Verso Paper’s Jay mill (center left) and Mary Skorupa, Verso Paper’s Bucksport mill (center right) pose for a picture with their co-op/intern students.

Steve Provencal, Verso Paper’s Jay mill (left) attended the fall scholarship banquet and presented his co-op student her scholarship check.

Greg Worcester from Woodard and Curran (left) attended the fall scholarship banquet to present their co-op student her scholarship check.

Nick Knowlen, Metso Automation congratulates his co-op student at the fall scholarship banquet held in September.
Twenty-Four Incoming First Year Students Introduced at Banquet

Twenty-four incoming first year students arrived at UMaine in September to start their engineering studies. The students were selected to receive scholarships from a pool of 80 applicants.

By major, 14 students are enrolled in chemical engineering; 5 students in mechanical engineering; 2 students will study electrical engineering with the remaining three students studying bioengineering, civil engineering and electrical engineering.

Of the 24 students, 18 were participants in the 2012 Consider Engineering program. Foundation Executive Director Jack Healy said, “Our Consider Engineering program is the best means we have to recruit students to study engineering at UMaine and ultimately go to work in our industry. The program gives us the opportunity to get to know the students and gives the students the opportunity to learn what it will be like to study engineering at UMaine.”

The first-year students were invited to attend the Foundation’s annual scholarship banquet in September where they were introduced to our upper-class scholarship recipients, scholarship committee members and company representatives who were on hand to distribute scholarship checks to upper-class students.

Scholarship Applications for students entering UMaine in the fall 2014 are available for download on the Foundation’s web site at: www.mainepulpaper.org. Applications are also available at all Maine high school guidance offices or by calling the Foundation Office at 207/581-2297. Application deadline is December 31, 2013.
Old Town Company Poised to Take Lead in Conversion of Wood to Sugars, Industry Experts Say
By Alex Barber, BDN Staff, Posted October 17, 2013
Reprinted with permission from The Bangor Daily News

OLD TOWN, Maine - Old Town Fuel and Fiber has the opportunity to be a pioneer in processing wood into sugars to make everyday products including plastics and ethanol, according to industry experts.

The Sustainable Bioplastics Council of Maine held a forum Thursday, October 17th, 2013 at the mill focused on growing bio-based manufacturing jobs. The University of Maine’s Forest BioProducts Research Institute also took part in the forum, which was attended by about 75 industry members and educators.

“This innovative Maine company is poised to become first in the world to turn wood into sugars - cellulose sugars,” said Mike Belliveau, executive director of Environmental Health Strategy Center, a Maine-based green industry advocacy group. “Those are nature’s chemical building blocks. From sugars you can make plastics, chemicals and fuels that go into a whole variety of consumer products and materials that we use in our daily lives.”

Ownership of the pulp mill has changed hands several times over the years. Currently Old Town Fuel and Fiber employs 200 people.

The company takes wood pulp, which is 75 percent sugar and is able to convert it to clean cellulosic sugars, said Darrell Waite, process manager at Old Town Fuel and Fiber. One ton of wood equates to just under a half ton of cellulosic sugar.

“Old Town has proven technology for producing clean cellulosic sugar from wood for conversion to biofuels, bio-plastics, bio-chemicals and potentially carbon fibers,” said Waite.

The sugar produced was sent to 50 different companies, and each one was able to convert it for their own use, he said.

If the technology catches on and the cost of production is able to be reduced, it will equate to jobs, according to Belliveau.

“The technology developed by this company can be the key to revitalizing distressed pulp mills throughout Maine and the northeast. We’ve lost over 5,000 pulp and paper manufacturing jobs since 2000 in Maine and the northeast. This technology can help retain and create new manufacturing jobs,” he said.

The process of making the cellulosic sugars can also improve people’s everyday lives, said Corinne Young, chief advocate for Renewable Chemicals and Materials Alliance.

“It’s all about improving our lives, creating jobs, and it’s an economic opportunity,” she said. “Maine can be a leader in riding this wave of what is a trillion-dollar global opportunity.”

Belliveau said creating ethanol from wood sugars is only the first step for Old Town Fuel and Fiber. Other products could be on the horizon,

UMaine Research on Wood to Jet Fuel Project Reached an Important Milestone

UMaine research on the wood to jet fuel project reached an important milestone in early October. A one liter sample of the kerosene fraction of the hydrotreated UMaine TDO oil was tested by the Air Force Research Laboratory (AFRL) in Ohio. The sample was found to have met flash point, freezing point, smoke point specifications for JP-8, with a heat of combustion of 42.6 MJ/kg (min spec 42.8), hydrogen content of 12.88% (min spec 13.4%), and density of 0.875 (max spec 0.84). Blending or additional hydrotreating can fix these parameters. Earlier, the diesel fraction of hydrotreated UMaine TDO was found to meet specification for HDCD-76 navy fuel. UMaine TDO oil is a synthetic crude oil made by Thermal DeOxygenation (TDO) of mixed organic acid salts that can be produced by hydrolysis and dehydration of woody biomass. TFO forms a core of patented UMaine technologies developed by the Thermal Conversion group led by Dr. Wheeler with two chemical engineering undergraduates involved as co-inventors. Currently the floor-scale TDO production, hydrotreatment, and fractionation facility at the FBRI Technology Research Center (TRC) can process one liter batches of UMaine TDO oil per day. This work was funded on a project sponsored by the Logistics Research and Development Program at the Headquarters of the Defense Logistics Agency, Fort Belvoir, VA.

Darrell Waite, (’89 ChE graduate and PPF scholarship recipient) currently process manager at Old Town Fuel and Fiber, holds a container of cellulosic sugar, that is made from products.

Elisha Cram, FBRI Technology Research Center holding diesel-cut hydrotreated UMaine TDO oil.
Steve Abbott, ’79, has been named Energy Asset Operations Leader at NewPage in Wisconsin Rapids, WI.

Mark Cross, ’79, is President of Naxo’s Consulting Group and Executive in Residence at the University of Richmond.

Mark Reynolds, ’85, has a new position and is now Senior Regional Sales Manager at Imerys.

Wanda Clossey, ’86, has joined FiberMark in Brattleboro, VT as their Paper Machine Department Manager.

Bill Wallace, ’89, is now Global Marketing Director at Chemtura in western PA.

Dee Carsley, ’92, has joined Gorham Paper & Tissue in Berlin, NH as Technical Manager.

Paul Deschene, ’92, has been promoted to Senior Process Improvement Engineer at Glatfelter, Inc., at their Spring Grove, PA facility.

Chris Finnemore, ’92, is now Recovery Area Operations Manager at Sappi’s Somerset mill.

Bill Burns, ’93, has joined NewPage Corporation in Rumford, ME as Maintenance Superintendent.


Bill Plappert, Jr., ’00, is now Assistant Pulp Mill Superintendent at Glatfelter, Inc., in Spring Grove, PA.

Monique Claverie, ’01, has been named Executive Recruiter - Power Industry at FPC Bangor.

Michelle L’Heureux, ’05, is now Associate Process Engineer at Gestamp Biomass in Boston, MA.

Jessica Paul, ’06, has been promoted to Pulp Mill Specialist at Sappi’s Somerset mill.

Codi Slike, ’07, has been promoted to Process Engineering Group Leader & Mill Black Belt at Verso Paper in Jay, ME.

Chris Fisher, ’08, has been promoted to Production Engineer on #1 Paper Machine at Sappi’s Somerset ME mill.

Matt Berard, ’09, has joined Ashland, Inc., as an Account Manager serving the Madawaska, ME area.

Sean Snyder, ’09, is now Area Manager at Barclay Water Management Inc., in the Greater New York City Area.

Dan Chamberland, ’10, has joined Tyler Technologies as a Development Installation Engineer in Portland, ME.

Nick Knowlen, ’10, has been promoted to Field Service Engineer at Metso Automation in Norcross, GA. Nick is currently assigned to accounts in Maine.

Jeff Galle, ’11, is now a Manufacturing Technology Field Engineer at DuPont serving the Huntington, WV area.

Sarah Muzzy, ’11, has joined the Chemical Process Design Group at O’Neal Inc., in Greensville, SC.

Lou Ortiz, has joined International Paper as a Maintenance Leader - Global Manufacturing Training Team leader.

Glenn Poole, has been promoted to Energy Manager at Verso Paper’s Bucksport, ME mill.

Mary Wagner, has joined Great Northern Paper in Millinocket, ME as Technical Manager.

Richard Picard, ’75 (left) and Kip Recor (center) surprised Faye Murray (right) with a visit to the Foundation’s Hall of Appreciation to view their scholarship plaques. Photo by Jack Healy.
Members of the Class of ‘63 Visit UMaine for Reunion Weekend and Barbecue at Jack’s


Lincoln Paper & Tissue’s Annette Smith-Wright Inducted Into UMaine’s Francis Crowe Society

Lincoln Paper & Tissue’s Annette Smith-Wright (right) pose with James A. Poure, Chairman and founder of GAC Chemical Corporation, announced the appointment of David M. Colter to Chief Executive Officer.

Colter joined GAC in 1994 as Controller of its Great Lakes Division. In 1999, he was promoted to corporate Chief Financial Officer and later in 2003, Chief Operating Officer and President of GAC Chemical Corporation located in Searsport, Maine. As Chairman, founder and principal stockholder, Poure has served as the CEO since the inception of the company in 1978 and believes the time is right for Colter to take the next step as Chief Executive Officer of the company. “I have mentored David for 19 years and he has proven himself as a strong leader and is committed to the continued growth and development of the company” said Poure.

Since moving to Maine in 2003, Colter has followed Poure’s example of community involvement. Colter currently serves on the University of Maine Pulp & Paper Foundation Board as its Treasurer, the Maine State Chamber Board, the Action Committee of 50 Board, and the UMaine Black Bear Board of Advisors. He formerly was District Chairman of the Boy Scouts of America in Waldo County.

GAC Chemical Corporation purchased the Searsport manufacturing site in 1994.

The Searsport location has been an industrial manufacturing site since 1922 when James Totman started Summers Fertilizer. Totman was born in Fairfield, Maine in 1893 and was a 1916 graduate of the University of Maine. Totman’s business philosophy was based on growth through diversification which is very similar to GAC. He also believed in philanthropy and corporate stewardship. Although James Totman and James Poure never had an opportunity to meet, they both share similar business philosophies and placed a high value on giving back to their communities.

During a visit to the site in 2011, Governor Paul LePage was impressed to learn that no other company in Maine did chemical manufacturing, chemical distribution, warehousing and logistics all at one site. The Governor stated that GAC is “Maine’s Chemical Company” which GAC proudly acknowledges and continues to expand and diversify to meet the needs of the pulp & paper industry in Maine along with other industries nationally and internationally.

GAC Chemical Corporation Names David Colter New CEO

Pictured, David Colter, CEO, GAC Chemical Corporation.
UMaine was a perfect fit for me and I realized that the summer before my senior year as I was walking around campus during the Consider Engineering camp. It’s close enough to home that I can still visit with my family but it’s far enough away that they can’t just stop by. The University also offers a lot of diverse opportunities for me to get involved. I am a member of the UMaine Women’s Track and Field team, as well as a member of a couple of groups associated with my chemical engineering program, TAPPI/PIMA and AIChE. As a dancer and singer prior to coming to the University, the Collins Center for the Arts offers a great list of shows to attend including student led performances throughout the year. When I was looking for colleges I was interested in a liberal arts option to balance out my technical major and the Honors College at UMaine does just that. As an avid skier and longtime Sugarloafier, I’m still close enough to the mountain to enjoy my favorite wintertime activity.

Since coming to UMaine in late August I have never been more confident with my decision. I’ve really enjoyed dorm life at the University and the people that I share my floor with have come to be some of my closest friends. In the last couple of months I have gone to my first UMaine hockey game and my first college football game with the students on my floor and joining the student section at both of these games has really made me feel part of the UMaine community on campus. My classes this semester have been equal parts challenging and intriguing and are a great introduction to the curriculum I will be facing over the coming years. The Pulp and Paper Foundation has been a large influence in my college experience and I am so fortunate to have had their help from getting an introduction to the paper industry to help with class scheduling and networking opportunities for my future endeavors.

Where Are They Now

In this issue of the Dandy Scroll you will note a new section called “Where Are They Now”. We have added this section as a result of a survey we conducted with our students during the Scholarship Banquet this fall. We asked what topics the students wanted to hear about - some of the things they said were, research and innovation in the pulp and paper industry, energy and renewable energy, and what are former scholarship recipients doing now. We will be addressing research and renewable energy in the final two Chinn Seminars this fall, and we decided to address the former scholarship recipient interest with the new “Where Are They Now?” section of our newsletter. If you would like to be featured in this segment please contact Faye at 207/581-2297.
If you follow the emerging trends in Clean Technology, you no doubt have heard much about nanocellulose and its potential as a high-value material. Cellulose nanofibers are an advanced biomaterial made from renewable forest and agriculturally-based sources. They have demonstrated exceptional performance in super-strong materials, barrier coatings, composites, foods, transparent flexible films, and in other applications. Cellulose nanofibers are mainly valued because of their strength; a strand of CNF is stronger than steel. It takes on different structures depending on how it is dried. For example, when a sample of the CNF slurry is dried with heat, the material becomes hard, dense, and tough and can be machined into different shapes and sizes. When freeze-dried, the material is light-weight, super-absorbent and demonstrates good insulating properties. Nano-cellulose fibers are approximately 1,000 times smaller than traditional paper fibers. The material can be made from any ligno-cellulosic sources such as woods, grasses, corn stalks or wheat straw.

UMaine has pioneered research in the field for a number of years. In a major milestone, the UMaine PDC has recently completed the last phase of its capital project to construct and commission a new Cellulose Nanofiber (CNF) Pilot Plant. The new plant was funded through a joint venture with the USDA Forest Service and is the only one of its kind in the US. At UMaine the $1.5 million grant funded the purchase of an ultrafine grinder, a spray dryer, and important upgrades to its refining and stock preparation areas. It was constructed in parallel to the Cellulose Nanocrystal (CNC) Pilot Plant at the USDA Forest Products Laboratory (FPL) in Madison, Wisconsin.

The two pilot plants now produce CNF and CNC in sufficient quantities for application development, which previously was not available. The PDC serves as the sole distributor of nanocellulose to the research community. Since distribution began less than a year ago, the PDC has distributed over 4,000 pounds (on a dry weight basis) of nanocellulose to over 110 organizations, in 24 countries on four continents. It is exciting to consider that these organizations – ranging from multinational corporations, universities, startup companies, entrepreneurs, and even high school science students – are pursuing novel research projects with a diversity of applications.

Another goal of our work is to help develop standards for various grades of nanocellulose and to improve methods to isolate and characterize various forms of nanocellulose. Research is also being devoted to developing scalable methods to convert wood components into novel, high-performance nanomaterials. The project is directed by Michael Bilodeau, Director of the UMaine Process Development Center and Douglas Gardner, UMaine Professor of Forest Operations, Bioproducts, and Bioenergy and head of the Nanocomposite Research Group.

The new capacity in nanocellulose production enhances the recent upgrades to the PDC’s papermaking capacity. As usual, these pilot facilities and the staff at the PDC are available for your R&D needs on a fee-for-service basis. To find out more please visit our website at http://umaine.edu/pdc/ or call the PDC at 207-581-2281. We look forward to working with you.
Chemical & Biological Engineering Second Largest in UMaine’s College of Engineering

The Chemical and Biological Engineering Department at the University of Maine has become the second largest department in the College of Engineering. Mechanical Engineering is ranked largest. The graph pictured below shows the growth of the Chemical and Biological Engineering Department since 2001.

Audrey Cook (pictured) at the Baltic Sea in Helsinki. Audrey told us co-oping in Finland was a huge learning experience both professionally and personally. Audrey told us “I used what I have learned in the ChE program and applied it to the real world. I also had the opportunity to be immersed in another culture. I got a different perspective on the world and on my career”.

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