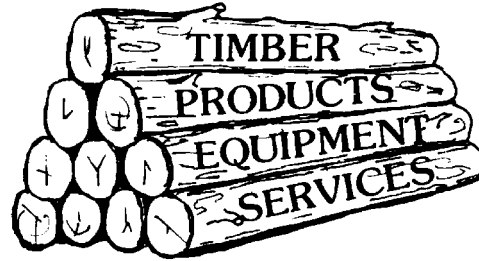




A Service to
Minnesota's
Forest Industry

The Market Place



Fall 2006

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Hope you enjoy it!

Keith Jacobson

MarketPlace Bulletin

The MarketPlace Bulletin is published four times annually by the Minnesota DNR Wood Products Utilization & Marketing staff and is distributed free of charge. It serves the wood industry of the state by providing relevant information on forest industry and forest resources, and by listing forest product and related items wanted, for sale, equipment for sale or wanted, services provided and employment opportunities. The Bulletin has a mailing list of over 3,000, and is also available on the internet at: <http://www.dnr.state.mn.us/publications/forestry/marketplace/index.html>.

Persons can begin receiving the bulletin, or cancel a current subscription, by making a request by phone at: (651) 259-5270 or by email: keith.jacobson@dnr.state.mn.us.

Minnesota Forest Products Industry Mill Shutdowns and the Current Reduced Demand for Wood

Recent Oriented Strand Board (OSB) Mill Shutdowns

Ainsworth Lumber Co. Ltd. permanently shut down one of its production lines at its Bemidji Oriented Strand Board (OSB) mill in late August, resulting in the elimination of about 110 jobs. The newer, second line in Bemidji continues to operate, and the 150 employees working on the remaining line will keep their jobs, the company said. In late September, Ainsworth announced that they were suspending OSB production at their Grand Rapids and Cook facilities for an indefinite period. The Grand Rapids facility employs 190 people. The closure resulted in the immediate layoff of approximately 150 employees in Grand Rapids. The Cook facility employs 170 people. All employees at Cook were retained for two weeks to perform extensive annual maintenance work that was originally planned for December. Once the maintenance work was completed, approximately 150 employees at Cook were laid off. The company announced that production at the Grand Rapids and Cook facilities will only resume when warranted by improved market and cost conditions. Headquartered in Vancouver, BC, Ainsworth is North America's fourth largest producer of OSB and has seven OSB manufacturing facilities.

Contributing Factors

A "triple-whammy" of reduced demand and greatly reduced prices, increasing supplies, and rising production costs have contributed to the current situation in OSB markets.

Demand

A significant factor has been the recent and significant downturn in national OSB demand and prices (see page 2 sidebar), which is primarily a result of a downturn in new housing construction in the U.S. (see page 5).

Supply

OSB supplies have increased. A large amount of new OSB capacity is coming "on-line" in southeast US and Canada, as several new mills have

Reduced Demand...Continued from Page 1

opened. More new mills are scheduled to open in the coming year. These new mills tend to be larger and more efficient than older mills. Additionally, they are located in regions of North America with access to cheaper wood.

Rising Production Costs

Costs for the wood, resins, energy and transportation needed to produce OSB and other “engineered” wood products (wood products produced by binding together wood strands, particles or fibers with adhesives) and get them to market have risen considerably over the past several years. Of these costs, resin, energy and transportation have risen everywhere. Therefore the high price of aspen regionally, and in Minnesota in particular, is the single biggest production cost factor causing the reduced competitiveness of some of our mills.

There is a simple principle that largely explains why the engineered wood and lumber sectors of the forest products market typically feel more pain from high wood costs than the paper sector: For paper, wood raw material comprises somewhere around 15% of total production costs. For engineered wood products, wood raw material has historically made up roughly 35% to 40% of total production cost. High wood costs are even more relatively painful for the lumber sector, where wood often comprises over 50% of final product cost.

Older Technology/Machines in Some Minnesota Mills

Although there are some very modern mills in Minnesota, some facilities/ lines and machines are old by global standards. The Bemidji line that closed permanently was an example of this. Older mills tend to be less efficient and more costly to operate than the newer mills coming online in North America. The Cook mill was rebuilt recently, and is a modern facility. The Grand Rapids mill, and the Bemidji line that is still operating have had some recent capital investments as well.

Global Marketplace

Minnesota’s large forest products mills are now owned by very large companies that have mills all over North America, and in some cases the world. This means that they must now not only compete

What Caused the Price of Aspen to get so High in 2005?

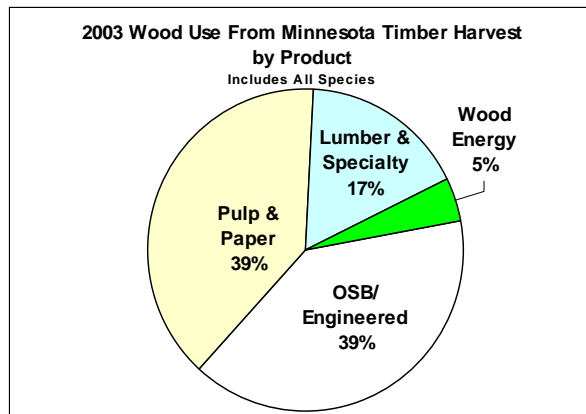
The situation is complex, but boiling it down to simplest terms: supply and demand caused aspen prices to reach what many have characterized as unsustainable levels in 2005.

Contributing factors included tight aspen market supplies; strong demand for aspen (the preferred species for many products made by Minnesota mills); and reductions in harvesting from national forests over the past decade.

These factors, along with bidding fueled by expectations of continued excellent markets, resulted in rapidly escalating aspen prices through autumn of 2005.

Where Does the Wood Go?

OSB and other engineered wood products are a significant sector of Minnesota’s wood products economy. They use 39% of the roughly 3.6 million cords of wood harvested from Minnesota’s timberlands annually.



Source: USFS and DNR Mill Surveys

OSB Prices

OSB and engineered wood prices have been a key underlying factor in the current market situation. Price per thousand square feet of OSB from north central mills was \$416 in late September of 2005. Current price is \$165/ thousand square feet.

Source: Random Lengths Newsletter

with other companies in the global marketplace for product sales, but must also now compete *inside their own companies* with other (often newer/more efficient) mills for capital reinvestment dollars, in order to modernize. Mills with high production costs relative to others in a companies' portfolio are first to close or be idled when markets turn downward.

What About Conditions in Other Forest Product Market Sectors?

Paper

Markets for Minnesota's paper mills are currently in a fairly steady demand situation. Markets may not be great, but they are not bad, either.

Other Sectors Dependent on Housing

It is not just OSB struggling with softening markets and profitability, though. Most other markets dependent on the housing sector, such as several other kinds of engineered wood products, and many types of lumber, are also soft at present.

Current Reduced Demand for Timber

Contributing Factors

As recently as this past February, contacts in the industry were extremely concerned about getting enough wood to their mills due to very high demand, coupled with the unfavorable logging conditions for much of the winter. However, wood yards at most of Minnesota's primary wood product mills are now quite full, and have been for months. Many alternate wood landings are also stacked full of wood. What happened?

Many mills reacted to concern over supply by continuing to source large amounts of wood, enabled largely by:

- Prices fueled by excellent engineered wood and lumber markets
- A logging community that adapted to the challenging logging conditions
- Mill shutdowns in Canada, Michigan and Wisconsin contributed to more imports to Minnesota
- What some have called a "psychology of scarcity"

Then, markets softened rapidly (caused largely by reduced housing construction activity) and production slowed at some mills.

These factors, along with improved late winter logging conditions, resulted in the glut of wood in the "pipeline" since late winter.

Impacts to Workers and Communities

Impacts of the recent shutdowns have been severe. Obviously, the major impacts of the recent shutdowns have been felt by the impacted communities, mill workers, loggers, truckers and related workers. Many of the affected jobs command good wages, so the shutdowns have a tremendous negative "ripple" effect on affected communities and surrounding areas.

In addition to layoffs, extreme slowdowns have impacted loggers and truckers in the following ways:

- Most loggers and truckers, and their expensive equipment, have been nearly idle, or well below productive capacity for many months.

Reduced Demand...Continued from Page 3

- Even when loggers can deliver wood, lower prices are now being paid by many mills due to the lower prices they are getting for finished products. This is a losing proposition for loggers and companies, many of who purchased high-priced timber in the overheated markets of 2004-05.
- Given the current stockpile of wood, even when product/mill production increases, it is likely to be months before loggers would be harvesting large volumes of “new” wood.
- Some logging capacity in Minnesota is definitely at risk from loggers getting out of the business.

Impacts to Markets and Forestry

Stumpage Prices

Stumpage prices are dropping. At the September 21 DNR auction in Park Rapids, aspen stumpage averaged around \$34/ cord (*Readers should use caution when comparing prices prices shown with prices on any individual sale*). This compares to average statewide prices on DNR sales of around \$67/ cord in 2005, and \$39/ cord in 2004. As stumpage prices drop, privately owned wood tends to become more difficult to access.

Wood Demand

The permanent line shutdown in Bemidji resulted in a reduction of around 160,000 cords of annual wood demand. Additionally, the mills in Grand Rapids and Cook, together, use somewhere in the neighborhood of a half-million cords annually. This current reduction in demand, in the context of around 4.1 to 4.2 million cords total primary wood industry annual demand (including imports) is a huge issue for the industry, and for forestry in Minnesota.

Species and Management Impacts

Aspen markets will be greatly impacted, of course, but it is likely that there will continue to be markets for most available aspen, albeit at reduced prices, and over an increased time frame. Of great concern to the forestry and logging community are also impacts to markets for other species. The Ainsworth mills were the largest markets in Minnesota for tamarack, ash and basswood pulpwood-sized material. They also used a significant amount of small-diameter pine. The improved markets for these species in recent years, enabled largely by Ainsworth’s use, has resulted in greater management of these species. Ability to manage these key species and cover types is greatly reduced with the Ainsworth mills offline.

Government Response to the Current Situation.

In response to the Ainsworth shutdowns and concerns in the larger wood industry, Governor Pawlenty has announced a series of state actions, including retraining assistance for laid off workers, the granting of extensions of expiration dates on some already-purchased DNR timber sales, and a reconvening of the Governor’s Task Force on Forest Industry Competitiveness.

Parting Thoughts

A very important reason for most of the large forest product mills in Minnesota being located here is our aspen resource. Aspen has the ideal properties for the products they make. Also, many of the mills are designed such that they are most productive when processing aspen.

The Generic Environmental Impact Statement on Timber Harvest in Minnesota (GEIS) in 1994 envisioned that forest industry in Minnesota would adapt to tight aspen supplies by making greater use of species other than aspen. This began to happen around 2001, but has not occurred to the extent envisioned in the GEIS. The strategy of species substitution outlined in the GEIS is still important to Minnesota forest industry and forest management today. There are available supplies of timber in several alternative species, including small diam-

eter basswood and ash. There is also great forest management need in these resources that will only be realized by harnessing market forces to accomplish the work.

Forest product companies need to stay competitive by making individual decisions on resource use based on market and business conditions. These factors continue to make aspen a very important species for many mills. However, for companies that are able and willing to consider greater use of alternative species and fiber sources in their operations, assistance from the public sector is available in the form of resource analysts and capable, practical wood scientists.

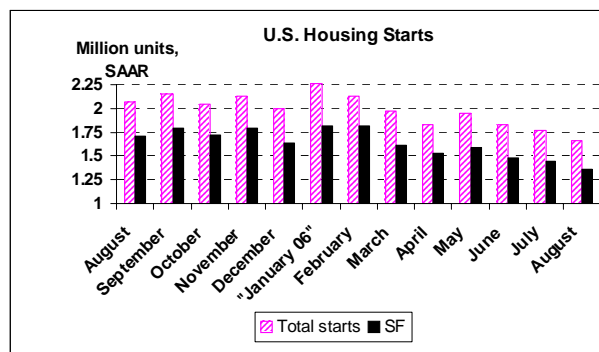
It is important to understand that greater use of alternative species and fiber sources is not a “silver bullet” solution to industry difficulties, nor would it be easy to accomplish. However, it could be one important factor among many needed to help achieve long-term industry health. To the extent companies can stay competitive while making greater use of alternative species, the health of our forests, industries and communities in Minnesota will all benefit. Regarding the aspen resource itself, greater efforts in assisting private owners in managing their woodlands will be needed in order to better manage and access the significant portion of the aspen resource located on private lands.

U.S. Housing Starts – August 2006

Because it is such an important factor in markets for many wood products, we include the following analysis for Dr. Al Schuler, an economist with the USDA Forest Service: August housing starts fell 6.0% to 1.665 million (Seasonally Adjusted Annual Rate or SAAR). Single family starts were down 5.9% to 1.36 million (SAAR). The Midwest region was down 12.2%. Permits, a good indicator of what may happen in the next two to three months, fell 2.3%.

Analysis and outlook: The housing market fell for the sixth time in seven months, to the lowest level (SAAR) in forty months. Regionally, the Midwest is down 29% from year ago levels. Housing’s contribution to Gross Domestic Product (GDP) has exceeded 16% the last several years for the U.S., so one can understand the concern when housing activity begins to cool. The consensus is that housing will continue to recede until sometime in 2007, and then return to demographic trend levels in 2008. Some analysts suggest an inventory correction will take about another 18 months to bring demand and supply back into balance. The overall economy remains on sound footing, so an inventory correction makes sense to explain the size of the pullback in housing. Analysts are calling for a pullback in total starts (single, plus multi family) to somewhere between 1.55 million and 1.65 million by 2007 – about 23% below 2005 levels of 2.07 million units.

The total inventory of new and existing homes for sale is almost four and a half million units, or 3.5 times the number of new homes sold during all of 2005. This is the largest total inventory on record, so it will take some time for builders to curtail starts enough to pare new home inventories to manageable levels; and considerable time for lower prices to bring the resale market back into better demand-supply balance. The consensus opinion is that this is the major reason for the severity of the pullback in starts expected over the next 18 months. The good news is that it could have been much worse if this correction was delayed for another six months.



Recent DNR Timber Auction Results

At the September 21 DNR auction in Park Rapids, timber stumpage prices were considerably lower than those of a year ago. The average prices* per cord were:

Intermediate auction: Aspen-\$32.33; norway pine thinnings-\$31.86; jack pine-\$41.18.

Regular (large) auction: Aspen- \$36.39; norway pine thinnings-\$31.38

Salvage: Jack pine- \$31.39; aspen-\$34.05

For complete information on recent DNR timber auctions, go to: <http://www.dnr.state.mn.us/forestry/timbersales/index.html>

**Readers should use caution when comparing prices shown with actual prices for any specific timber sale. Individual sale prices will vary considerably due to physical and market conditions.*

Biomass Workshop 2006

By: Greg Russell, CF MN DNR –RC&D Forester

A total of 177 people attended a July workshop at the Energy & Environmental Research Center (EERC) on the UND campus in Grand Forks, ND. Attendees came from 3 foreign countries and 19 states and included several power companies, large forest products companies and sawmills. The workshop was broken down into five (5) broad categories: 1) Trends and Opportunities in Utilizing Biomass; 2) Transportation Biofuels; 3) Biopower Development for Electricity; 4) Biorefinery Chemicals & Products; and 5) Biopower Development for Heating. A total of 23 presentations were given over two days.

Statistics show: At the present time, roughly half of the electricity in the U.S. comes from Coal-fired power plants. Roughly 9% comes from renewable sources. We import about 61% of our oil, and we use 147 billion gallons of oil per year. Current US ethanol production is 4.8 billion gallons/yr. We produce only 3.2% of our electricity from biomass, mostly generated at pulp/paper facilities. The DOE has a goal to replace 30%, or 60 billion gallons, of our gasoline with ethanol by 2030.

Why the interest in biomass?: The President has called for 25% of domestic fuel to be in the form of ethanol and biodiesel by 2025. The world currently consumes 2 barrels of oil for every gallon of new oil discovered. The U.S. has only 3% of world's natural gas reserves. These factors, along with rising fossil fuel prices, have resulted in the growing interest in biofuels.

Where will biomass come from?: Ag crops and residue, wood (poplars, willows, wood residue from mills, timber slash, pellets, etc.), animal waste, and municipal solid waste.

How do we get heat & power from biomass?: Combustion, gasification, or bio-oil extraction. The development of biomass based power and fuel production is likely to be based on small distributed facilities rather than simply changing the power source for mega-facilities.

Why Biofuels?: Several reasons, including a domestic supply, small carbon foot print, the ability to blend with conventional fuels, their good fit w/current transportation systems, and their environmental advantages. Biofuels also promise improved economic security for midwestern states, and they could potentially supply 30% of global demand without affecting food production.

What form will bioenergy take?: Ethanol, biodiesel, butanol, hydrogen, methane, syngas, bio-oil, steam, electricity and more.

Bio-oils: The University of Minnesota has developed a system to get 70% yield of bio-oil from wood and other vegetation through a fast pyrolysis system. Bio-oil comes from lignosic material, and is similar to crude oil.

Ethanol: Cellulosic ethanol is generating a lot of attention. New facilities are planned for Idaho & Iowa, and one facility is already operational in Canada. Corn based ethanol continues to expand as well, with several new facilities planned for, or under construction in Minnesota. There are new technologies for producing ethanol from bio-gas, as well as new enzymes created for the fermentation of cellulosic material into ethanol.

Bio-gasification: – Using July 2006 fuel prices, wood is a cheaper source of fuel until the cost per ton of wood reaches \$30 and \$75 respectively, compared to coal & natural gas. Wood and other cellulose are easier to work with than livestock waste and municipal solid waste.

EERC at UND has developed a 1 megawatt micro-gasifier for small business applications, which can be used to fuel a generator or produce chemical or liquid fuels. They have run tests using: sawdust, municipal tree debris, straw board residue, wood pellets, wood chips and other feed stocks. Results from the test runs are now available.

Steam or electricity: Using syngas to make steam is a better use of the gas than generating electricity. Steam production costs are lower using syngas than natural gas, propane or fuel oil. Using biomass for steam production does not require tipping fees, making it economical / attractive to suppliers of biomass. Polk County, at Fosston, has a waste to energy facility using municipal solid waste. They create steam for several costumers. Minnesota has 12 waste to energy facilities operating at the present time. Central Minnesota Ethanol is gasifying wood to generate steam heat for their ethanol production to replace natural gas. They may have an opportunity to sell excess steam to the city of Little Falls.

Other bio-based products are also becoming more attractive: Interest is growing in making butanol from ethanol. Butanol has a better market value than ethanol, and may provide more environmental and equipment related benefits. Polymers, resins, and fabrics are but a few of the other bio based products being developed. Over 20 biomass fuels have been successfully tested throughout the world.

What about pelletized biomass?: Wood is the most commonly pelletized fuel. However other forms of biomass are being tested with varying results. Other forms of pelletized biomass can have issues with ash, and binding qualities.

There are efforts underway to make wood pellet furnaces for residential use that will be compatible with other fuels such as alfalfa pellets or corn. A Minnesota company has developed a system of delivering and storing pellets for residential use, similar to how water softener salt is delivered by some vendors. This may make wood pellet furnaces more attractive to the general public.

The future: Biomass energy is not the sole answer to our energy needs. We must look at hydro power, wind power, geo-thermal, solar and other sources to get us off the petroleum kick. It appears that there are two things limiting our development of Biofuels: 1)A lack of financing and 2)A willingness to take a risk on these new technologies. As the economics become better, it looks like we will see a significant increase in demand for biomass, with agriculture and forest material leading the way. Lastly, the message that came up time and again is that small distributed facilities are likely to be the wave of the future rather than simply changing the power source for mega-facilities. So look for opportunities locally!!!

Increase Hardwood Log Quality Through Improved Bucking

The Hardwood Value Improvement Project (HVIP) is a training program that integrates field, classroom and computer simulation techniques to teach better log bucking. The goal of HVIP is to increase the value and quality of hardwood logs by improving the log bucking skills of loggers and yard workers. The training will be delivered to the logging industry through a network of local trainers. No logger training sessions are currently scheduled in Minnesota, but it is anticipated that several will be offered in the coming year. Stay tuned for session announcements.

The HVIP training program and bucking simulator software were developed by Dr. Jim Pickens at Michigan Technological University, with funding from U.S. Forest Service's Wood Education Resource Center. The HVIP program is administered by the Ohio Forestry Association.

Currently HVIP is recruiting local Trainers throughout 28 state eastern hardwood region to assist in putting on log bucking value improvement training sessions. If you are interested in becoming a Certified HVIP trainer or want to host a training session, contact Angela Gupta, the regional project coordinator serving Minnesota and Wisconsin. Angie's contact information is: Angela S. Gupta, University of Minnesota, 863 30th Ave, SE, Rochester, MN 55904. Tel: 507.280.2869; Fax: 507.280.2872.

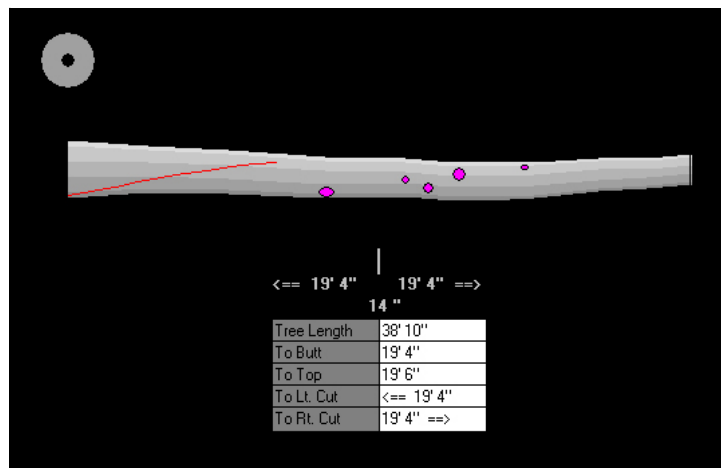
Why Should I be Involved?

A tremendous opportunity exists to improve the quality and value of logs produced in the bucking operation and this improvement is needed to help offset the overall decline in the availability of high-quality sawlogs.

Two recent studies (Pickens 2003, Haynes and Visser 2001) have shown that more than 20 percent (and in some cases approaching 40 percent) of the potential value of sawlogs is lost due to poor log bucking. Pickens (2003) found that loggers who are given training and asked to focus on quality log bucking do indeed improve their performance (as measured by log value recovery) easily and dramatically.

Increased availability of high quality sawlogs can make significant contributions towards assisting the U.S. hardwood lumber industry to sustain itself under the pressures of global competition. Applied on a region-wide basis, improvements in log bucking provide one of the greatest opportunities for sustaining the eastern forest resource and resource-dependent economies. For more information, or to download a test version of the log bucking simulation software, go to:

<http://www.hardwoodvip.com/>



NORTH WOODS WORKSHOP SERIES LAUNCHED

Deer River, Minn.— Through the North Woods Workshop Series, running through Nov. 22 across northern Minnesota, customized marketing help for wood businesses is on the way. Veteran professionals have been tapped by the Minnesota Wood Education Project and Minnesota Wood Campaign to conduct several two-hour workshops. Remaining workshops include:

Reaching Architects: Promoting your products, services and messages among influencers

Trade Shows, Trinkets, E-Bay and More: Keeping your name out front

Branding and Promotion: Breaking into high-value, niche markets

For registration information, contact Minnesota Wood Education Project at 1-888-223-5629 or online at www.TrueNorthWoods.com. The workshops are open to any business or individual who feels they would benefit, with discounts available for multiple workshops.

What Do Architects Need?: Promoting Your Products, Services & Messages Presenters: Cheryl Fosdick of DF Design, Ltd. & Winner of the AIA Minnesota Honor Award.

Specifying — what types of forest products do architects and firms use, who does the specifying, how do they specify, how does your brand and the True North Woods™ brand impact specifying, approaching and responding to architects, continuing the relationship. Sustainability — what forest product promotional messages are appealing, sustainability and green issues, LEED, Minnesota Sustainable Design Guide.

October 31, 8:30 a.m., Virginia , Northeast Entrepreneur Fund

October 31, 2:30 p.m., Grand Rapids , Forest History Center

November 1, 8:30 a.m., Bemidji , Kohl's Resort

November 1, 2:30 p.m., Brainerd , Central Lakes College

Sales Promotion Unlimited – Trade Shows, Trinkets, E-Bay & More

Presenters. Mike Mraz of Skyline Displays & Trade Show Strategist and Trainer.

Trade Show Power – considerations, eye-opening facts and statistics, outcomes visualized, selecting the right show, qualified leads, characteristics of effective booth staffers, body language techniques, booth behavior, creative exhibit design with a purpose. Profitable Exhibiting – proven 4-step trade show selling system, budget rules and budget busters, pre-show promotions, before the show, after-show follow up with impact, measuring results. 50 Low-Cost Promotional Idea, from trinkets to E-Bay & more.

November 21, 8:30 a.m., Virginia , Northeast Entrepreneur Fund

November 21, 2:30 p.m., Grand Rapids , Forest History Center

November 22, 8:30 a.m., Brainerd , Central Lakes College

November 22, 2:30 p.m., Bemidji , Kohl's Resort

Specialty Products – Branding, Promotion & Selling for Niche Markets

Presenter: Allison Rajala Ahcan of the Minnesota Wood Campaign & Founder of True North Public Relations.

November 21, 6:30 p.m., Grand Rapids , Forest History Center

November 22, 6:30 p.m., Bemidji , Kohl's Resort

Minnesota Logged Area Residue Report Available

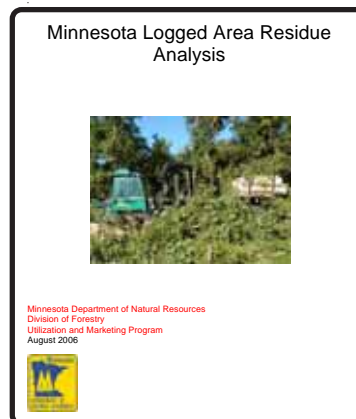
A report on the “Minnesota Logged Area Residue Analysis” study is now available online at: <http://www.dnr.state.mn.us/forestry/um/index.html>

The study results can be used to develop estimates of downed woody debris, debris piles and standing residual trees by county, forest type and harvest system.

Logged area residue is the wood material remaining after the “merchantable” timber has been harvested. The type of material typically left is the tops of harvested trees; standing trees too small to harvest or reserved clones within the harvest area; and wood that has an underdeveloped market or is a poor form and thus not saleable in traditional forest product markets.

The report summarizes the results of data collected on recently harvested sites across Minnesota. Summary tables are included that show average residue from various harvest methods, logging types, and residue types. Tables showing estimates of average harvest acreage by county and forest type were also developed, using “satellite imagery change detection analysis” done by DNR’s Resource Assessment unit.

For further information, contact project lead Lance Sorensen, DNR Division of Forestry; Phone: 651-345-3216; Email: lance.sorensen@dnr.state.mn.us



Forest Products For Sale

- FOR SALE** Plywood, OSB, particleboard, and/or MDF cut to size or shape according to your specifications. (2) Plywood blocks for pallets available. Contact: Joe Campbell, Steel City Lumber Co, PO Box 36189, Birmingham, AL 35236; Phone: (800) 733-1907; Fax: (205) 733-1709.
- FOR SALE** 20,000 bf 4” white pine lumber, 8’-14’ in length, air-dried. Contact: Todd Whitehead, East Central Forest Products, PO Box 24, Braham, MN 55006; Phone: (320) 396-0098.
- FOR SALE** Hardwood lumber; (1) Black walnut (up to 14” wide) (2) Maple, red elm, basswood, blocks for woodcutters. (3) Oak (can cut to your specs). Contact: Dan; Phone: (507) 685-2169; Email: zielske@cvtel.net.

- FOR SALE Approximately 600 bf rough sawn 11/8" KD basswood. Good for craft lumber. Contact: Jason Frank, Woodland Improvements; Phone: (320) 983-6641; Cell: (320) 282-3546.
- FOR SALE Northern white cedar products; (1) Log furniture material. (2) Round & sawn log home timbers. (3) Lumber. (4) Fence posts. Contact: Richard Hufnagle, Page & Hill Forest Products, Inc, 7556 County Road 31, Big Falls, MN 56627; Phone: (218) 276-2251; Fax: (218) 276-2352. Email: pagehill@citlink.net.
- FOR SALE Firewood; oak & ash windthrow, you cut, \$40 per cord. Woody biomass: willow, basswood, aspen, aspen, oak & ash treetops. Small scale logging equipment preferred. Property is in eastern Ottertail County. Contact: David P. Lindroth, 8150 137th St W, Apple Valley, MN 55124; Phone: (952) 432-7066.
- FOR SALE (1) Dowels, rods, poles, 3/4"-2 1/2" diameter, lengths up to 16' long w/no splicing. (2) Factory cart truck stakes & replacement parts. (3) Wheelbarrow handles, core plugs, re-winding plugs, plywood shipping circles, pry bars, lifting sticks, paddles, many types of plugs, cutting sticks, plus many types of custom made wood products. Contact: Mark Slade, Mark Slade Mfg, 110 S Mill St, Seymour, WI 54165-1250; Phone: (920) 833-6557; E-mail: drhandles@new.rr.com
- FOR SALE Small quantities for the crafter: Ash, birch, basswood, butternut (carving stock), hard maple, red oak (some 1/4 sawn), white oak (some 1/4 sawn), poplar, spruce, red pine & white pine. Contact: Jim Mielke, Mielke's Mill & Crafts, 37885 Park Trail, Center City, MN 55012; Phone: (651) 583-2813; Email: jlmiel@ties2.net.
- FOR SALE Large amount of cottonwood lumber, mostly 2", some 1", full cut dimensions. Will saw your logs or mine, also re-saw salvaged timbers. Band saw mill & circular sawmills run daily. Contact: Loren Strei, 3835 121st Avenue, Ortonville, MN 56278; Phone: (320) 839-2057.
- FOR SALE (1) Small diameter white birch, 1"-4" in diameter, up to 12' tall, will cut to your specifications. Ideal for making furniture or for ornamental projects. (2) Basswood logs, will be cut in October. Contact: Alex Bildeaux, Bildeaux Services, 21473 Manning Trail, Scandia, MN 55073; Phone: (612) 819-9465; Fax: (651) 433-2121; Email: bildeauxservices@frontiernet.net.
- FOR SALE 3,500 bf of white pine & some oak lumber, air-dried in pole building for 15 years. Will consider reasonable offer. Contact: Rod Middlestedt, 495 66th Ave NE, Fridley, MN 55432; Phone: (763) 571-4253.
- FREE Sawdust – will load into your truck. Contact: Sherman Humburg, 13551 400th Ave, Blue Earth, MN 56013; Phone: (507) 526-5984.

Equipment For Sale

- FOR SALE **Skidders:** (1) 2 - 648E JD grapple skidders. (2) 2 - 460D TBJ grapple skidders, single & dual arch. (3) 548GII JD grapple skidder. (4) 3 - 548G JD grapple skidders. (5) 748G JD grapple skidder, dual arch. (6) 450C TBJ grapple skidder. (7) 648D JD grapple skidder. (8) 2 - 548D JD grapple skidders. (9) 460C TBJ grapple skidder. (10) 548E JD cable skidder. **Feller Bunchers:** (11) 411E Hydro Ax shear. (12) 720 Tigercat w/20" Koehring saw-head. (13) 603 Valmet w/18" Koehring saw. (14) 221 Hydro Ax shear. (15) 3 - 411 BII's Hydro Axes, saw & shear. (16) 3000 Franklin shear. (17) 653E JD track cutter w/hotsaw. (18) L830

Tigercat track cutter w/hotsaw, level cab. **Knuckleboom Loaders:** (19) 384 Prentice loader w/CTR 400 delimeter. (20) "00" 210 E Prentice loader w/saw hyd. (21) 160C Barko loader w/saw hyd. (22) 2 - 410D Prentice loaders. (23) XL355 Husky on self propelled carrier. (24) 2 - 160 Barko loaders. (25) 2 - Mack trucks w/behind the cab loaders. **Dozers:** (26) D5C111 Caterpillar dozer, 6 cyl, power. (27) Komatsu D39E dozer. **Miscellaneous:** (28) 611EX Hydro Ax brush cutter. (29) 546C Fabtek 6 wheel forwarder. (30) Peterson Pacific 5000 chipper. (31) Ground saws & delimiters in stock. (32) Lowboys in stock, single & tandem axle. (33) 95- International Eagle 9400 truck. Contact: Wade or Zane for equipment, Wes for parts. Phone: (334) 366-2778. Email: www.heartofdixieequipment.com.

FOR SALE (1) Arasmith salvager hog. (2) Baker de-duster. (3) Baker double head notcher. (4) Brewco Big Band 3-head band re-saw w/runaround. (5) Hempstead low speed grinder. (6) Morbark Stac-Trac, late model. (7) Morbark waste recycler. (8) Norcot pavement grinder. (9) Williams hog. (10) Wood Power Model T - 72 whole pallet grinder. (11) Prentice 150 loader. (12) Cornell cant sizer. (13) Cornell double arbor gang. (14) Cornel remote trim. (15) Keystone stake pointers. (16) Keystone double end trim. (17) Lauderdale Hamilton Super Chop. (18) Meadows #2 automatic. (19) Newman KM-16. (20) Newman 500 & 510 planers. (21) Pendu gang saws & complete systems. (22) Pendu board stackers. (23) Rip-Jac over & under dismantler. (24) Rogers un-nailer. (25) Timber Harvester band re-saw w/runaround. (26) Timber King band sawmill. (27) Waechter band re-saws. (28) Wagner gang saw. (29) Wilson board un-scrambler. (30) Complete sawmill, Salem carriage w/Silva tech set, Fulghum de-barker. Contact: Bob; Phone: (610) 621-2893. Email: ramco@comcast.net.

FOR SALE Performax promax 2 drum sander, many new rolls of sandpaper included, \$1,200 or OBO. Contact: Jason Frank, Woodland Improvements; Phone: (320) 983-6641; Cell: (320) 282-3546.

FOR SALE (1) Five pieces – new inserted tooth saw blades 20" dia x 8ga x 3 1/2" bore x 18 T style F, PHS 3 9/16"-4 1/2" Corley machine specs, Miner brand. (2) Slightly used FAS trac model #307, left hand band saw blade sharpener, sharpens 2-1/2" to 7" wide bands, for blades 20' length & under, \$4,500, shipping charges additional. (3) Used inserted tooth saw blades. (4) Dealer for: Simonds, Pacific/Hoe, Piper, Euro, Corley, Hanchett, Meadows, Frickco, Etc. Contact: Harry R. Schell Sawmill Sales & Supplies, Inc, 601 West Park St, PO Box 127, Blue River, WI 53518; Phone: (608) 537-2987; Order line: (800) 462-5807; Fax: (608) 537-2032.

FOR SALE (1) Western Star tractor, low mileage. (2) 2518 Timbco feller-buncher, shear & sawhead. (3) Hahn processor, one man, short wood. (4) Mack truck w/80 Barko loader. (5) Case unloader. (6) JD backhoe, 310. (7) 740 cable skidder. (8) Dimension mobile sawmill. Contact: Roy Housey, 9727 Hwy 1, Isabella, MN 55607; Phone: (218) 323-7647; Cell: (218) 343-8078.

FOR SALE (1) 1991 Super T Bell feller-buncher, new engine w/28" L26" tires & Hultdins tracks, \$23,000. (2) Barko 80 loader mounted on 2070 International truck, \$4,000. (3) JD 743 delimeter head, \$1,500. (4) Converter dolly & 38' rail trailer, \$3,500. Contact: Brad Maus, Maus Sales, Inc, 1163 County Rd 6 NW, Baudette, MN 56623; Phone: (218) 634-2864; Fax: (218) 634-1600; Email: maussales@wiktel.com.

FOR SALE Jackson hydraulic log turner, with stinger type arm, with pusher. Contact: Jackson Lumber Harvester Co, Inc, 830 N State Rd 37, Mondovi, WI 54755; Phone: (715) 926-3816; Fax: (715) 926-4545; Web: www.jacksonlbrharvester.com

FOR SALE Cable skidders: (1) JD 440C, all tires 45%, \$18,000. (2) JD 440A 2 tires 99.9% & 2 tires 70%, \$7,800. Contact: RA Knoll, 13512 230th St, Milaca, MN 56353; Phone: (320) 983-2480.

- FOR SALE 1909 Pat. American 4x planer, 6"x16" belt or PTO, \$1,700. Contact: Joe Neubauer, MN Hardwood Supply, 21482 Rice Rd, Hinckley; Phone: (320) 629-1080.
- FOR SALE (1) 110 Prentice loader/Int. truck/Lemco slasher, \$5,500. (2) 42' pulp trailer, \$2,800. (3) 16' pulp pup, \$1,000. (4) 88 Volvo, all air ride, \$2,500. Contact: Dennis Engebretson, Engebretson Logging, 23836 Leobarel Rd, Leonard, MN 56652; Phone: (218) 968-2379
- FOR SALE (1) Three Bell 4a dowel machines w/extra blades & setups to 2 1/2" diameter. (2) Large table saw, 30 blades, most are carbide tipped, 12"-16" diameter. Contact: Mark Slade at Mark Slade Mfg, 110 S Mill St, Seymour, WI 54165-1250. Phone: (920) 833-6557; E-mail: drhandles@new.rr.com
- FOR SALE (1) Dixon sawmills, conveyors, log turners, hydra-dogs, pallet notchers, de-barkers, slab edgers, trim saws, decks, roll cases, small hydraulic loaders & trailers, trailers w/loaders for 4 wheelers. (2) Cornell blowers, edgers, trimmers, notchers, slab saws, log cleaners, un-scrambler. (3) Valby wood chippers. (4) Farmi – skidding winches. (5) Hitachi power tools & chains. (6) Patz conveyors & belts. (7) Lacey-Harmer laser lights. (8) Danco rip saws. (9) Webster vibrating conveyors. (8) Safe-T-Shelters & storm shelters. (10) Used electric motors & electrical equipment, used sawmill machinery & bark processing equipment. (11) Dixon line of sawmill & logging equipment. (12) Circular sawmills, & edgers. (13) Mills & edgers made both stationary & portable. (14) Log turners, belt & chain conveyors, roll cases, log turners, hydra-dogs, pallet notchers, slab edgers, de-barkers, multiple saw trimmers, (15) Custom built decks, small & medium size hydraulic loaders & trailers. Contact: Dixon-Rusch Co, 400 Rusch Rd, Antigo, WI 54409; Phone: (715) 627-4361; Fax: (715) 627-4375.
- FOR SALE Small, used circular sawmill; 36" inserted tooth blade, 30 hp 3-phase electric power, 8' carriage/3 headblocks (manual), 26' track, will handle 12' logs & will cut 14" through. Includes 2 spare blades, sawdust bin & blower, loading deck & slab bunk, stickers & miscellaneous tools. Located in Paynesville, MN, photo available. Contact: Bill Henderson, Henderson Woodwork, 15251 Old Lake Rd, Paynesville, MN 56362; Phone: (320) 243-3474; Email: bill@louisind.com



Forest Products Wanted

- WANTED (1) White or bur oak saw logs, prefer 12', 10' or 16', if necessary will take 8'. (2) Red oak firewood 8' or tree length. Contact: Greg Pont, Pont's Logging & Lumber, 12633 80th St, Little Falls, MN 56345; Phone: (320) 584-5573.
- WANTED 2 to 3 semi-loads of white pine, red pine, spruce or aspen sawlogs, 8" minimum diameter, length 8'6", 10'6", 12' 6", delivered to mill in Long Siding, MN. Call for prices. Contact: Jason Frank, Woodland Improvements, Home Phone: (320) 983-6641; Cell Phone: (320) 282-3546.
- WANTED Plywood strips, 3/4" thick & thicker, 3 1/2" wide & wider, 96" long & longer: Contact: Scott Talbot, Talbot Lumber Inc, 20150 Hwy 10, Big Lake, MN 55309; Phone: (763) 263-9663; Fax: (763) 263-9667; Email: stalbot@talbotlumber.com

WANTED Black ash veneer logs, 14" & up, 3 clear or better, 8'6", 9'6", 10'6" & multiples, no ring shake. Contact: Ross Hebeisen, High Island Export, Box 346, Isle, MN 56342; Phone: (320) 676-8456; Fax: (320) 676-3879; Email: hrisle@ecenet.com

Equipment Wanted

WANTED Used Weinig moulder, good condition. (2) Used pneumatic forklift, 5,000-6,000 lb, capacity LPG. Contact: Scott Talbot, Talbot Lumber Inc, 20150 Hwy 10, PO Box 9, Big Lake, MN 55309; Phone: (763) 263-9663; Fax: (763) 263-9667; Email: Stalbot@talbotlumber.com



Services and Miscellaneous

SERVICES Civil and structural engineering. Foundations, timber construction. Registered Minnesota professional engineer. Contact: John F. Wilkinson P.E., Consultant, 604 2nd Ave N, Sartell, MN 56377; Phone: (320) 253-1019 or (563) 547-1078.

SERVICES Anchorseal end sealer for green logs and lumber, available in clear and colors; free sample available. Also, LogSavers and FlichtSavers, plastic "s-irons" for logs and veneer fitches. U-C Coatings Corp, PO Box 1066M, Buffalo, NY 14215; Phone: (716) 833-9366; Fax: (716) 833-0120; Email: mnmkt@ucoatings.com, or visit our web site at: www.ucoatings.com

SERVICES Custom drying, dehumidification kiln, 600 bd. ft. capacity. Contact: Jim Mielke, Mielke's Mill & Crafts, 37885 Park Trail, Center City, MN 55012; Phone: (651) 583-2813; Email: jlmiel@ties2.net.

SERVICES Circular, band & carbide sawblade repair. Contact: Harry R. Schell Sawmill Sales & Supplies, Inc, 601 West Park St, PO Box 127, Blue River, WI 53518; Phone: (608) 537-2987; Order line: (800) 462-5807; Fax: (608) 537-2032.

Utilization & Marketing Staff: All staff other than Keith Jacobson are part-time on U&M.

Keith Jacobson, U&M Program Leader, St. Paul, 651-259-5270 Email: keith.jacobson@dnr.state.mn.us

Rick Dahlman, U&M Staff, St. Paul, 651-259-5257 Email: rick.dahlman@dnr.state.mn.us

Jeff Edmonds, Northwest Region U&M Staff, Bemidji, 218-755-2894 Email: jeff.edmonds@dnr.state.mn.us

Doug Tillma, Northeast Region U&M Staff, Grand Rapids, 218-999-7843 Email: doug.tillma@dnr.state.mn.us

Lynn Mizner, Northeast Region U&M Staff, Aitkin, 218-927-7511 Email: lynn.mizner@dnr.state.mn.us

Jean Mouelle, Central Region U&M Staff, Warner Road, St. Paul, 651-772-7567, Email: jean.mouelle@dnr.state.mn.us

Lance Sorensen, Southern Region U&M Staff, Lake City, 651-345-3216 Email: lance.sorensen@dnr.state.mn.us

Greg Russell, RC&D Forestry Coordinator, Willmar; Phone: 320-231-0008; Email: greg.russell@dnr.state.mn.us

DNR Forestry Timber Auction Sales

| Date | Auction Type | Sale Name | Location |
|-------------|---------------------|---------------------------------------|-----------------------------------|
| Oct 30 | Regular Sealed Bid | Warroad Area Decorative Trees | Warroad Area Forestry Office |
| Oct 30 | Regular Sealed Bid | Blackduck Area Decorative Trees | Blackduck Area Forestry Office |
| Nov 28 | Regular | Cambridge Area | Cambridge Area DNR Office |
| Nov 28 | Regular | Blackduck Area | Blackduck Senior Center |
| Nov 28 | Intermediate | Blackduck Area | Blackduck Senior Center |
| Nov 29 | Intermediate | Littlefork Area | Littlefork Community Building |
| Nov 29 | Regular | Littlefork Area | Littlefork Community Building |
| Nov 30 | Regular | Two Harbors Area | Silver Bay Reunion Hall |
| Nov 30 | Intermediate | Two Harbors Area | Silver Bay Reunion Hall |
| Dec 04 | Regular | Aitkin Area | Long Lake Conservation Center |
| Dec 04 | Intermediate | Aitkin Area | Long Lake Conservation Center |
| Dec 05 | Regular | Baudette Area | Baudette Area DNR Forestry Office |
| Dec 05 | Intermediate | Baudette Area | Baudette Area DNR Forestry Office |
| Dec 05 | Regular | Winona, Houston and Fillmore Counties | Rushford Fire Hall |
| Dec 06 | Regular | Orr/Tower Areas | Orr American Legion |
| Dec 06 | Intermediate | Orr/Tower Areas | Orr American Legion |
| Dec 07 | Regular | Cloquet Area | Cloquet Area DNR Forestry Office |
| Dec 07 | Intermediate | Cloquet Area | Cloquet Area DNR Forestry Office |
| Dec 07 | Regular | Warroad Area | Grygla Community Center |
| Dec 07 | Intermediate | Warroad Area | Grygla Community Center |
| Dec 08 | Regular | Backus Area | Pequot Lakes City Hall |
| Dec 08 | Intermediate | Backus Area | Pequot Lakes City Hall |
| Dec 08 | Regular | Hibbing Area Sealed Bid | Ironworld |
| Dec 08 | Intermediate | Hibbing Area Sealed Bid | Ironworld |
| Dec 12 | Regular | Deer River Area | Bigfork Community Center |
| Dec 12 | Intermediate | Deer River Area | Bigfork Community Center |
| Feb 07 | Regular | Sandstone Area | Rutledge Comm Ctr |
| Feb 07 | Intermediate | Sandstone Area | Rutledge Comm Ctr |
| Feb 08 | Intermediate | Bemidji Area | Bemidji Area DNR Forestry Office |
| Feb 15 | Regular | Winona, Houston and Fillmore Counties | Rushford Fire Hall |



The Market Place
DNR Forestry
 500 Lafayette Rd
 St. Paul, MN 55155-4044
 Website: <http://www.dnr.state.mn.us/publications/forestry/marketplace/index.html>

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