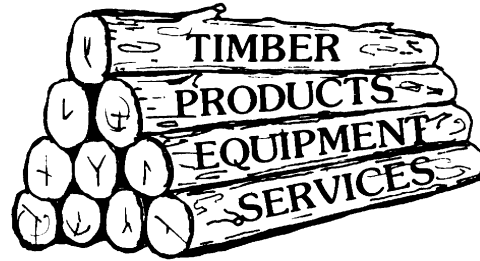




A Service to
Minnesota's
Forest Industry

The Market Place



Spring/ Summer 2004

In This Issue: Our feature article is the public stumpage price review. Thanks to Doug Ford, our DNR Forest Economist, and to all of the public agencies who provide data for the survey. We also have articles on Minnesota's white cedar resource, changes at the U of M Wood & Paper Sciences Department, a basswood, maple and ash market update and an update on DNR's forest certification effort. Also included are a notice of a project to put together a Special Forest Product marketing directory by U of M Extension and a listing of some educational opportunities. We finish with our ever-popular free ad listings. Hope you enjoy it!

Keith Jacobson

Correction:

Auction sales between May 11 and June 4 were inadvertently left off of the timber sales auction calendar last issue. Please see the calendar on page 16 for an accurate listing of auctions, including those missing from last issue. We apologize for any inconvenience caused by this error.

Minnesota 2003 Public Stumpage Price Review

Doug Ford, our DNR Forest Economist has assembled the 2003 Public Stumpage Price Review. It is included, along with historical information back to 1995, in the following tables. Probably of greatest interest is the continuing upward trend in aspen prices. Escalating aspen prices are a complex issue. There are positive aspects of increased revenue to public & private landowners, and a greatly improved ability to manage forestland that was previously unmanageable. There is a limit however. If prices become so high that industry is no longer profitable, they will eventually leave. And no one wants that to happen.

Pulp & Bolts in Combination
(\$'s per cord)

Species	1995	1996	1997	1998	1999	2000	2001	2002	2003
Aspen	20.59	19.05	22.85	25.39	26.35	28.66	34.33	30.80	34.52
Balm	16.96	15.48	16.01	19.51	18.04	25.41	32.57	28.35	28.21
Birch	5.48	9.51	9.03	9.40	8.97	9.45	10.40	10.18	12.61
Ash	28.76	28.65	26.70	18.45	7.09	10.01	11.52	10.01	9.84
Oak	32.82	35.48	30.71	24.58	34.00	25.35	24.33	32.32	34.50
Basswood	29.80	18.69	30.17	17.80	17.65	17.00	18.87	16.94	18.34
Balsam Fir	19.26	15.68	14.97	17.49	15.60	19.87	24.01	20.53	23.04
W. Spruce	29.57	26.51	27.78	26.56	29.83	34.25	33.84	34.88	35.86
B. Spruce	23.76	23.03	19.05	21.16	21.28	23.04	30.01	27.65	31.96
Tamarack	8.00	7.78	6.96	8.18	6.97	6.60	7.37	4.55	5.21
White Cedar	11.73	12.53	12.05	9.29	10.24	8.32	8.68	7.91	6.16
J. Pine	39.21	31.27	31.97	33.83	32.78	30.39	37.95	36.76	38.20
R & W Pine	53.05	44.78	44.71	48.81	57.93	53.35	43.89	40.01	39.13

A *bolt* is defined as a short log, usually 100" length, with a specific minimum diameter and generally sawn for lumber

Average prices based on those reported by Minnesota Counties, Chippewa and Superior National Forests, Bureau of Indian Affairs, and Minnesota DNR-Forestry. Figures compiled by Doug Ford, Timber Sales Program Supervisor, DNR-Forestry

Continued on Page 2

Pulpwood (\$'s per cord)

Species	1995	1996	1997	1998	1999	2000	2001	2002	2003
Aspen	18.69	16.09	19.20	20.54	23.40	25.28	28.76	27.36	28.95
Balm	16.48	13.24	13.76	16.95	14.13	25.27	32.06	27.53	25.12
Birch	3.52	7.52	7.88	7.53	7.66	7.69	8.31	8.16	9.04
Ash	4.46	5.00	4.46	5.51	2.28	4.09	3.91	5.86	3.62
Oak	4.51	4.37	5.64	8.98	10.76	9.27	7.74	5.77	4.35
Basswood	4.85	4.01	4.27	4.88	5.67	5.68	5.48	6.51	6.05
Balsam Fir	18.76	14.35	12.65	14.12	12.09	14.84	14.61	13.99	13.46
W. Spruce	26.18	19.06	12.8	19.18	26.62	32.63	29.90	30.51	21.87
B. Spruce	23.65	22.90	18.40	21.16	20.61	22.23	29.17	27.05	31.96
Tamarack	7.73	7.25	6.71	7.29	5.79	5.67	6.40	4.11	4.56
W. Cedar	10.48	10.55	11.27	7.31	6.83	8.46	6.74	7.06	4.68
J. Pine	32.08	23.48	23.59	24.72	24.32	21.94	21.63	22.18	21.37
R & W Pine	17.49	21.18	23.35	15.63	17.02	18.61	20.79	20.99	19.55

Average prices based on those reported by Minnesota Counties, Chippewa and Superior National Forests, Bureau of Indian Affairs, and Minnesota DNR-Forestry.

Figures compiled by Doug Ford, Timber Sales Program Supervisor, DNR-Forestry

Sawtimber (\$ per Thousand Board Feet)

Species	1995	1996	1997	1998	1999	2000	2001	2002	2003
Aspen	68.93	71.22	93.83	100.54	85.09	102.28	114.11	103.19	109.91
Birch	50.67	52.31	36.60	39.78	36.12	43.17	50.48	55.87	72.34
Ash**	151.28	147.18	108.93	97.09	48.70	71.39	81.97	66.85	76.60
Elm	47.02	60.08	107.20	53.31	56.50	---	44.10	69.00	62.08
Oak*	156.88	177.30	155.97	140.20	146.00	109.53	118.72	151.77	150.04
Basswood	120.91	105.37	107.07	81.15	74.77	70.25	81.24	80.43	94.47
Balsam Fir	55.10	61.49	71.61	88.30	80.82	120.65	144.20	136.32	145.47
W. Spruce	77.79	73.47	83.23	78.34	81.91	90.00	91.27	94.95	101.81
W. Cedar	38.55	42.58	37.00	38.64	39.13	19.96	30.46	29.43	24.73
J. Pine	136.55	108.37	115.46	121.84	124.00	114.86	154.35	155.76	135.43
R & W Pine	171.55	163.64	174.34	161.01	198.99	176.01	170.13	153.78	153.10

*Oak sawtimber prices mainly from public lands in northern Minnesota

**Black ash includes veneer

Salvage from July 1999 windstorm included in price for stumpage in 1999 and 2000.

Average prices based on those reported by Minnesota Counties, Chippewa and Superior National Forests, Bureau of Indian Affairs, and Minnesota DNR-Forestry.

Figures compiled by Doug Ford, Timber Sales Program Supervisor, DNR-Forestry

What is causing the continued aspen price climb? In the simplest terms; supply and demand, of course.

Aspen Demand and Minnesota Harvest

Interestingly, even though demand is robust, aspen harvest from Minnesota timberlands has actually decreased a bit from the high in 1999. This is because high prices have caused mills to undertake several strategies that have resulted in this slightly reduced aspen harvest from Minnesota timberlands. These strategies have included:

- Increasing imports of aspen from outside of Minnesota (mostly from Canada).
- Expanding the use of alternative species.

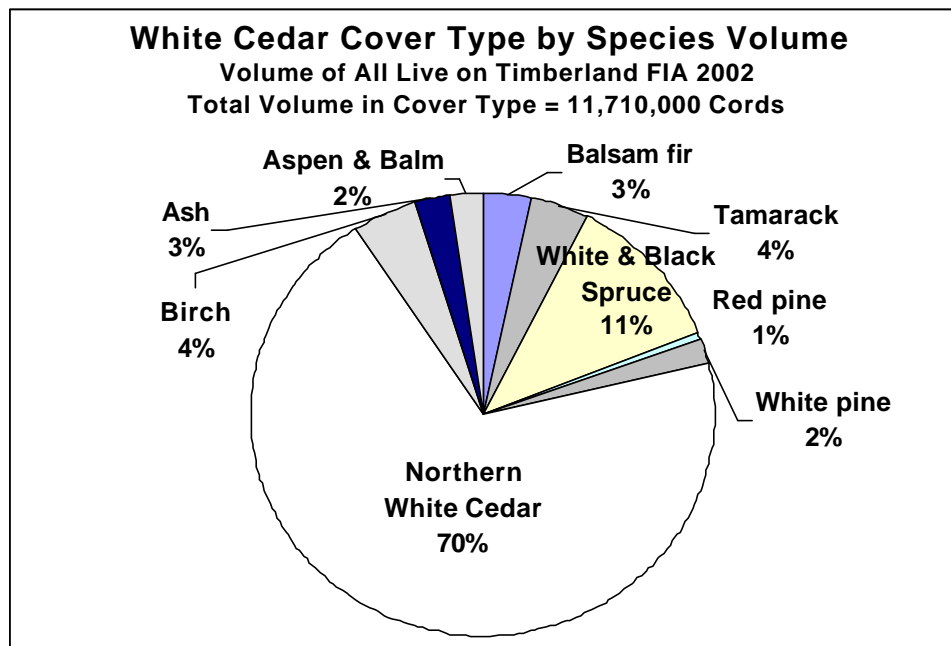
Overall demand for aspen continues to be strong, however. High volume sales, and those with summer access, especially, command a premium in the marketplace. Supply issues are often pointed to as major factors in the price climb.

Minnesota's Forest Resources Overview

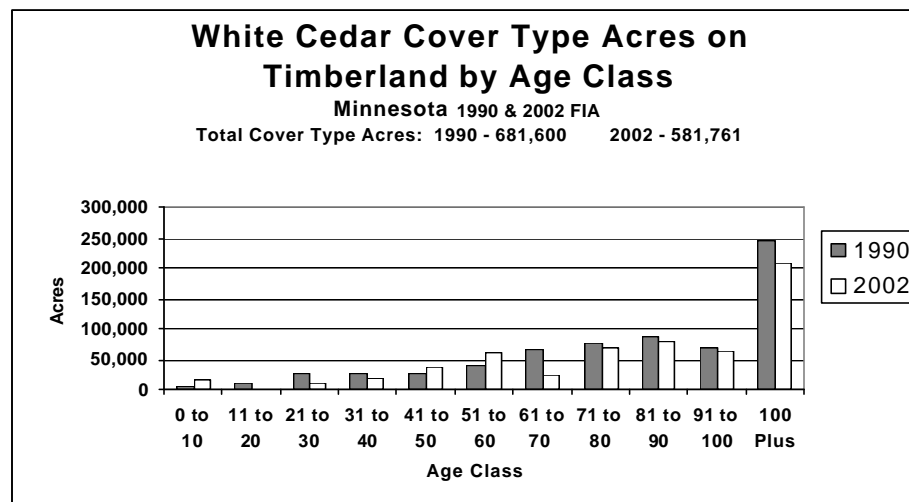
The white cedar resource is part 4 of our continuing look at Minnesota's changing forest resource. Readers should be mindful that we are using the FIA inventory data currently on hand. One more year of data will be available this summer, so some of the numbers will move a bit as more data comes online.

White Cedar

Northern white cedar is a slow-growing, long-lived conifer distributed throughout northeastern North America. The white cedar cover type in Minnesota is located largely in the northeastern 1/3 of the state and is made up of a variety of species. Cover type volume is dominated by white cedar, but includes spruce, tamarack, balsam fir, birch, ash and several other minor species. Cedar is significant because it provides critical wintering habitat for white-tailed deer, it provides habitat for many rare plant species including the threatened ram's head orchid, and it is a potentially valuable timber resource.

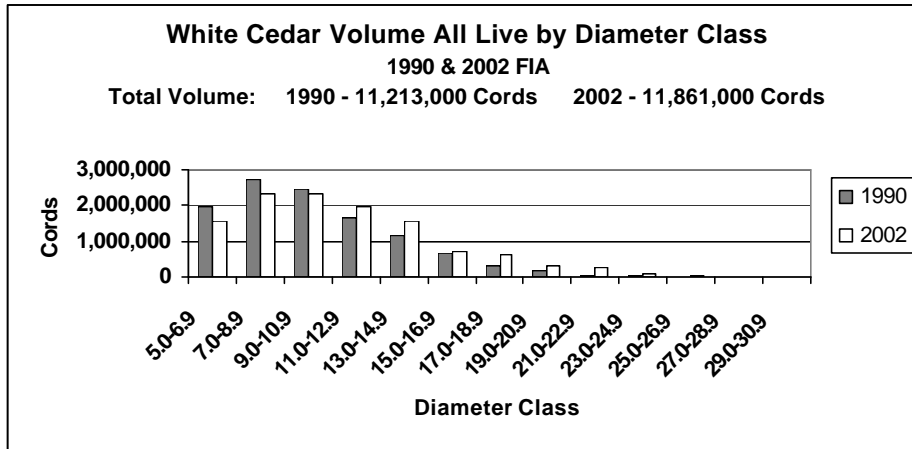


According to Forest Inventory & Analysis (FIA) data, white cedar cover type acreage has dropped from roughly 682,000 in 1990 to 582,000 in 2002. While some of this reduction may be explained by inventory design changes, the magnitude of the drop would indicate cedar cover type acreage is indeed trending downward.



Resource Overview...Continued from page 3

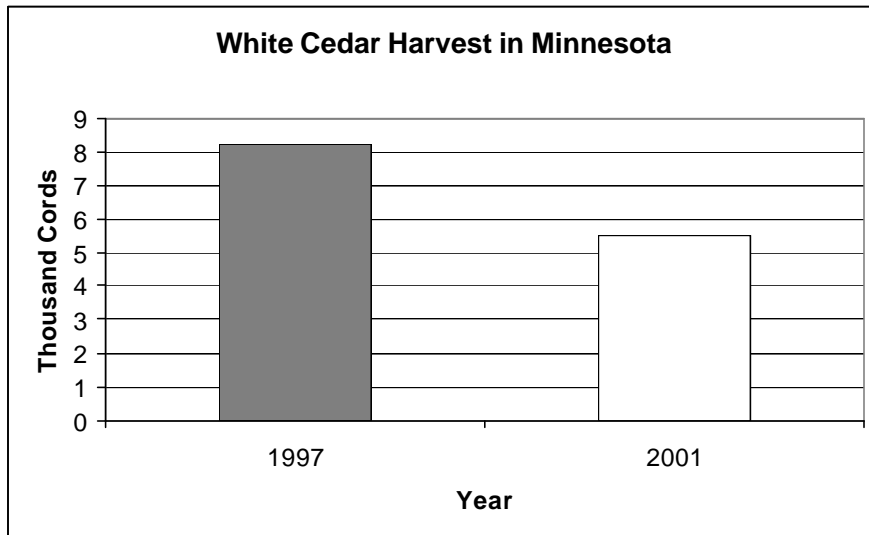
White cedar is generally an old resource, and it is getting older: over 205,000 cover type acres exist in stands over age 100, with less than 27,000 cover type acres below age 30. Much of the white cedar resource exists on very wet sites, many of which have low productivity and slow growth. High amounts of heart rot are common in older stands on wet sites. Much of the volume of white cedar is contained in material below 13 inches in diameter.



In spite of the loss of cover type acreage, total volume of cedar has gone up a bit since the last inventory

About half of the white cedar cover type acreage is owned by the state of Minnesota, but there are significant acreages on county, federal and private ownerships as well.

Use of white cedar for industrial products is very modest. With no pulpwood market for cedar, the small amount of utilization is entirely for sawtimber, specialty products and a small amount of fuelwood. Annual statewide harvest for all ownerships is under 10,000 cords. Net annual growth is around 202,000 cords. Clearly, there is potential in the resource for much greater utilization, but the regeneration issue must be solved prior to large-scale use.



Source: North Central Forest Experiment Station Pulpwood Surveys, MN DNR Sawmill & Fuelwood Surveys

Management of the White Cedar Resource in Minnesota

There is currently very little management of the cedar resource in Minnesota. Management efforts to date have been relatively modest, and almost completely uncoordinated. Reasons for this include discouragement

due to failure of regeneration trials by many local land managers and poor past markets for the wood. These factors have made it difficult for land management agencies to justify cedar as a priority for management or research efforts. According to a 2003 survey of DNR and County land managers, there has been some regeneration success in the Littlefork Forestry Area and in places on the north shore, but little elsewhere.

Suggested rotation ages for white cedar range from 100 to 160 years, depending on site conditions and management objectives. During management planning for DNR-administered forest and wildlife lands, rotation ages have been weighted more heavily toward the older side of this range.

Future Management Direction

It is important to maintain some active management of the cedar resource in order to better evaluate various sites and harvest methods for regenerating cedar. Very limited harvest and management is likely until difficulties in regeneration are overcome, however.

Better pre-harvest assessment of stands and improved monitoring after harvest are clearly needed. Greater use of ecological classification tools to better identify sites where cedar is a natural “fit” on the landscape, and improved regeneration monitoring methods being put into place should help. It is clear, however, that more research and coordination is needed to make serious progress in improving cedar management. To this end, Eric Zenner of the University of Minnesota has submitted a research proposal on behalf of the White Cedar Working Group to fund focused, applied research in white cedar regeneration and management.

The White Cedar Working Group was a small group of interested parties from DNR and the University of Minnesota. The group was formed in order to assess the white cedar regeneration and management situation in Minnesota, bring attention to the condition, and begin to develop strategies to address it. The group completed its efforts in March. A summary of the group’s activities and findings is available by contacting Keith Jacobson at keith.jacobson@dnr.state.mn.us.

We are at a point of historic opportunity and need to promote improved white cedar management in Minnesota. It is important that when we look back in 10 years, we will see that the opportunity has been seized, and that we will have improved the management of our white cedar resource.

Special Forest Products Marketing Directory Being Prepared

Special or “Non-Timber” Forest Products (SFP) are seeds, burls, boughs, berries and other non-timber raw materials that are gathered from the forest. A marketing directory is being prepared to better connect harvesters (suppliers) and buyers of these materials. The directory will include contact information and a list of materials handled. Your help is needed to provide this information by completing a short, voluntary survey. To be included in the directory, please respond by May 30 to:

Philip Monson University of Minnesota Extension Service, Cloquet Regional Center
179 University Road, Cloquet, MN 55720; Email: monso044@umn.edu; Phone: (toll-free) 1-888-241-0724.

Price Review...Continued from page 2

Aspen Supply Impacted by Many Factors Including Logging Capacity

There are many factors affecting available supply of aspen from Minnesota, most of which have been detailed in past issues of this publication, and in the "Governors' Task Force on Minnesota's Primary Forest Industry Competitiveness" report. One additional factor pointed to by several folks I spoke with is loss of logging capacity. Margins have been so difficult in logging that a number of firms have gotten out of the business. This seems to have especially impacted wood coming from smaller private parcels. Much of this wood got to market previously by loggers making personal contacts with landowners. Fewer loggers means fewer contacts. I think people are now realizing that more attention to maintaining logging capacity is needed. Sometimes things have to bottom out before there is significant improvement, though.

Another clear need is to increase our capacity to provide professional forestry assistance to private landowners. Landowners are often motivated by factors other than profit from a timber sale. They need to understand the many benefits of forest man-

agement and be comfortable that it is the "right thing to do" for their property. Greater availability and use of professional assistance is the best way to provide the needed information and comfort level for landowners.

Future Aspen Prices

Aspen stumpage prices will continue to adjust to the forces of supply and demand. While they may moderate some, it does not look, from here, like they will be going down in a significant way anytime soon.

Certification of DNR-Administered Forestlands

The Minnesota Department of Natural Resources (DNR) is pursuing certification from the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) forest certification systems. Forest certification is a voluntary audit process completed by an independent third-party to verify that forestlands are being managed according to sustainable forest management principles.

A clear message has been sent by several major forest products

companies and consumers that Minnesota must certify its' DNR-administered forestlands to help maintain the competitiveness of the state's forest industry in the face of global competition.

Forest certification will encompass DNR's forestlands held as State Forests, Wildlife Management Areas, and selected acres of Fisheries ownership along the north shore of Lake Superior. The DNR's goal is to have 4.5 million acres of State administered forestlands certified by FSC and SFI by December 2005.

DNR is certifying its' lands for many reasons. Most importantly, the management of Minnesota's forest resources will be improved by meeting the stringent requirements of two internationally recognized certification systems. Forest certification will also solidify DNR's credibility with and support from our diverse stakeholders. Certification will also better document the professional management of the State's natural resources by DNR personnel. Lastly, Minnesota's

local economies will be enhanced as current wood and paper markets are protected and new markets develop.

DNR has made good progress toward the goal of achieving certification by the end of 2005. A steering committee has been established and a coordinator hired to oversee the process. The steering group has been meeting regularly and doing necessary preparatory groundwork. DNR has applied to the Legislative Commission on Minnesota's Resources (LCMR) for funding to be used for audits and other expenses associated with certification. If funding is received, it would be available by July of 2005. It is anticipated that third party audits would begin around August of 2005, and the entire process would be completed before the end of 2005.

For more information on contact Andrew Arends, Forest Certification Coordinator, Minnesota Dept. of Natural Resources, 1160 S. Victory Drive, Mankato, MN 56001. Phone 507-389-1968.

Minnesota Ash, Maple, and Basswood Market Update

Ash

Pulpwood Markets:

Several Minnesota mills are now accepting ash pulpwood.

The Boise and SAPPI mills are taking some ash - several thousand cords per year total.

Potlatch is now using ash in their OSB species mix. They have been satisfied with the results so far, and plan to use over 20,000 cords in the next year.

Long story short:

Most of the state should see greatly improved markets for pulpwood-size ash. Pulpwood markets in southern Minnesota will remain challenging.

Sawlogs: According to the DNR sawmill database, there are over 100 sawmills in the state that use black or green ash. Annual statewide sawmill harvest and use for Minnesota in 2001 (the most recent data we have) was over 4 million board feet for black ash, and over 1 million board feet for green ash. Most sawmills utilize wood to a 10 inch diameter small end, inside bark, but some (especially some of those that make pallets

and pallet parts) will utilize wood down to 6 inches diameter inside bark. In their 2004 market projections, the "Weekly Hardwood Review" said that this could be a breakout year for ash. I guess time will tell on whether this pans out, but I am hopeful. Recent weeks have indeed shown an uptick in demand and price for some grades of ash lumber.

Veneer logs: The export veneer market has been soft for quite a while, but has come back a little bit recently.

Maple

Pulpwood Markets:

Several Minnesota mills are now accepting maple pulpwood.

Maple is the preferred species at the SAPPI mill in Cloquet.

The Boise mill in International Falls is taking some maple. Potlatch and Northwood Panelboard in Bemidji use small amounts of maple in their OSB species mix.

Long story short: The market for pulpwood size maple should be good in most parts of the state. Pulpwood markets in southern Minnesota will remain a challenge.

Sawlogs: According to our sawmill database,

there are over 50 sawmills in the state that use varying amounts of either soft or hard maple. Annual sawmill harvest and use for Minnesota in 2001 was over 4 million board feet for hard maple, and nearly 2 million board feet for soft maple statewide. Most of this is harvested and processed in the southeastern portion of the state. I think most folks are aware that our Minnesota maple tends to be lower quality due to a larger percentage of heartwood (darker color than sapwood) than in some regions of the country, and due to defects associated with frost cracks and less than optimal maple growing conditions. Most sawmills utilize wood to a 10 inch diameter small end inside bark, but some will utilize wood down to 6 inches.

Veneer Logs: In general, there just is not much veneer quality maple in Minnesota, except for some hard maple in the southeast on excellent sites. You can find hard maple veneer on rare occasions elsewhere.

Basswood

I think most of our foresters are aware that the northern hardwoods cover type in Minnesota contains a great deal of

basswood. Unlike maple, we grow some of the finest quality basswood in the world here. We can often get a high percentage of veneer quality material on good sites.

Pulpwood: There has not been much of a market for pulpwood-sized basswood in the past, but that may be changing. Basswood pulpwood markets are currently available on a limited basis, but will expand as technology permits (debarking is currently an issue). Potlatch has tested basswood as raw material for OSB and has been very pleased with the results. They expect to continue to explore ways to expand utilization of basswood pulpwood. OSB mills are likely to become the largest pulpwood market for basswood, as technical issues with its processing are resolved over time.

Sawlogs: According to the DNR sawmill database, there are over 80 sawmills in the state that use varying amounts of basswood. Annual sawmill harvest and use for Minnesota in 2001 was nearly 12 million board feet for basswood statewide. Most sawmills utilize basswood to a 10 inch diameter inside bark, small end. In it's annual market

University of Minnesota Department Changes to Stay Ahead!

The Department of Wood and Paper Science, part of the University of Minnesota College of Natural Resources, is making some changes. It will be broadening its approach in its mission to “help industry sustainably use the entire spectrum of renewable resources.” As a consequence of this shift, it will be changing its name to the “Department of Bio-based Products”. In addition to wood, the newly broadened department will work with the entire spectrum of biomass, including forestry and agricultural fibers (simply defined, biomass is any resource derived from organic matter, including wood and agricultural waste). Given recent advancements in biological sciences and fast depleting fossil fuel resources, it is expected that renewable resources and biomass will play a greater role in our everyday lives in the future. Biomass can be harnessed to heat our homes, run our cars, light our buildings, and provide industrial and consumer products. In addition to wood and paper, the scope of the newly named Bio-based Products Department includes other materials, chemicals and energy

that can be derived from bio-resources.

In support of this new direction and strategy the department’s undergraduate programs and curricula were changed in consultation with many people and organizations. The new name, “Bio-based Products,” is used for both the undergraduate programs and the department, and will be effective next fall. Bio-based products stands for materials, chemicals and energy derived from renewable, bio-resources including forestry, agriculture and other biomass. The revised “Bio-based Products” curriculum draws on the strengths and expertise from various colleges across the campus, including the College of Biological Sciences; College of Agricultural, Food, and Environmental Sciences; the Institute of Technology; and the Carlson School of Management.

“The new undergraduate programs offer a broad-based education and will vastly increase the career opportunities for our students spanning a wide spectrum of industries including the forest products, paper, and the emerging bio-products industries” says

Shri Ramaswamy, professor and head of the department. “This will also position our department and the college to continue to provide outstanding service to our stakeholders well into the 21st bio-century” adds Ramaswamy.

To learn more about the Department of Bio-based Products in the College of Natural Resources, visit <http://www.cnr.umn.edu/BP>.



Market Update...Continued from page 7

forecast, the “Weekly Hardwood Review” predicts decent markets for medium grades of basswood lumber, but poor markets for high grade sawlogs in the next year.

Veneer Logs

We grow lots of veneer quality basswood in

Minnesota. Unfortunately, the markets for this material have been poor for years.

A large portion of the volume in upper grades of basswood historically was used for wooden slats for window shades, but much of that market has moved to China. Different species and wood from places closer to China are filling most of the demand in this segment now.

There is a small market for clear basswood pieces in the craftwood segment, where it is prized by carvers. There should be opportunity for greater value-added products from basswood in the coming years, but it is likely to take some time for them to develop. For now, keep growing high quality basswood and have faith that the markets will eventually come around for it.



Educational Opportunities

The **Great Lakes Kiln Drying Association** will hold its annual fall meeting at the Kalahari Waterpark Resort and Convention Center in Wisconsin Dells, Wisconsin September 16-17, 2004. Tours and discussion topics will be announced later. For more information, contact Harlan Petersen at 612/624-3407 or by e-mail at harlan@umn.edu

The 27th Annual Kiln Drying Short Course will be held August 16-19, 2004 at the University of Minnesota, St. Paul. This course is designed to provide basic training for dry kiln operators and supervisors, but it is also open to anyone interested in kiln construction, kiln operation and wood-moisture relations. For more information, contact Harlan Petersen at (612) 624-3407, fax (612) 625-6286, or email harlan@umn.edu.

The University of Minnesota's 34th Annual Hardwood Lumber Grading Short Course will be held August 3-5, 2004 at Saint John's Abbey and University, Collegeville, Minnesota. This course is designed to provide a practical introduction to hardwood lumber grading through classroom discussion of the National Hardwood Lumber Association (NHLA) rules and hands "on" practice grading of actual lumber. For more information, contact Harlan Petersen at (612) 624-3407, fax (612) 625-6286, email harlan@umn.edu.

JOHN DEERE 1490D SLASHBUNDLER DEMONSTRATION

Wednesday, May 12, 2004, Grand Rapids, MN, area

Tuesday, May 18, 2004, Sandstone, MN, area

Thursday, May 20, 2004, Alexandria, MN, area

Sponsored by: Nortrax, Timberjack, University of Minnesota Extension Service, Minnesota Logger Education Program, Minnesota Department of Natural Resources, Minnesota Agroforestry Cooperative. Laurentian Resource Conservation and Development, Inc.

About the SlashBundler: The 1490D Slash Bundler harvests and bundles logging residue from timber harvesting or pre-commercial thinning sites, slash from brush shearing, and round wood from short rotation woody crop such as hybrid poplar. The bundled logs are the perfect match for biomass renewable energy projects. The 28 inch diameter 10 foot logs are roughly equivalent to 26 gallons of oil and are locally grown and utilized. Most importantly, this is a renewable resource!

Biomass harvest is an emerging potential opportunity for loggers, natural resource managers, and landowners. Come learn about site impacts, marketing of biomass, and see one of the newest harvesters in action. **These demonstrations are FREE and all interested companies and individuals are invited to attend. THE SANDSTONE AND ALEXANDRIA SITES ARE DEMONSTRATIONS ONLY.**

Grand Rapids Agenda:

8:30-9:00am:	Registration
9:00-10:30am:	Site Impacts of Biomass Harvesting
10:30am-12:30pm:	Field Demonstration of Timberjack Wood Energy Harvester
12:30-1:15pm:	Lunch on your own
1:15-2:15pm:	Biomass Marketing: Opportunities and Questions
2:15-3:15pm:	Open Q & A Session
3:15-3:30pm:	Evaluation

For more information or directions to the sites, contact:

Steven Kluess, Laurentian RC&D Coordinator, Duluth, MN, 218-720-5225

For General Information about the Demonstration Contact:

Jean Mouelle, Minnesota DNR, St. Paul, MN 651-772-7567 or 612-940-4386



Forest Products Wanted

- WANTED (1) Hardwood Logs; red oak, birch, black ash & basswood. Contact: Stanton Chip, Hi Tech Milling Corp, PO Box 8, 107 Swen Ave SW, Remer, MN 56672; Phone: (218) 566-3325; Fax: (218) 566-3326; Email: hitech@means.net.
- WANTED 6/4 low grade hardwood lumber for stake manufacturing. 4,6 & 8" widths. Contact: Bob Montgomery, R A Montgomery & Co; Phone: (484) 948-4089; Fax: (610) 678-2848; Email: ramco@juno.com.

Equipment Wanted

- WANTED (1) Log cabin tooling for Pendu saw. (2) Late model pallet manufacturing, wooden stake & shavings bagging equipment. Contact: Bob Montgomery, R A Montgomery & Co; Phone: (484) 948-4089; Fax: (610) 678-2848; Email: ramco@juno.com.
- WANTED Saw blades (1) 40" diameter, .187" plate thickness, 40 teeth, style 2 1/2", center hole - 1 1/2". (2) 20" diameter, .166" plate thickness, 16 teeth, style F, center hole - 3". Quantity is 1 each for first item & 2 each for second item. Contact: David Goetz, Cass Forest Products, PO Box 1008, Cass Lake, MN, 56633; Phone: (218) 335-2694; Fax: (218) 335-2383.
- WANTED Used machine for making 4 ft wooden lath. Contact: Al Rhoda, Rhoda Saw Mill, 2620 Paul Bunyan Drive NW, Bemidji, MN 56619-0695; Phone: (218) 751-5064.
- WANTED Surface planer in good condition. Contact: Dave Axley, Edgeway Lumber, 5210 Hwy 42 NE, Elgin, MN 55932; Phone: (507) 876-2780



Forest Products For Sale

- FOR SALE (1) Timber frame homes, trusses, or floor systems, built from re-sawn salvaged Douglas fir beams. (2) Salvaged Douglas fir or southern yellow pine timbers custom-sawed. (3) Douglas fir millwork, baseboards, etc. Contact: Ken Peter, Timber Ridge Custom Woodworking, 3703 Hautala Rd, Cloquet, MN 55720; Phone (218) 879-6656; Email: kimbah4@msn.com
- FOR SALE (1) Approx 48,000 bd ft. cottonwood lumber, 1" & 2", lengths from 8' to 26', \$.50/ bd ft.. (2) Will saw cottonwood to your specs for pallet material/ blocking. (3) Several hundred bd. ft. black walnut lumber 1" thick. Contact: Loren Strei, 3835 121st Ave, Ortonville, MN 56278; Phone: (320) 839-2057
- FOR SALE FCS certified lumber, rough sawn, stickered 8/2003: (1) Red oak 4/4 #3C, 725/bd, .47/bf. (2) Red oak 5/4 # 2 C, 645/bf, \$.69/bf. (3) Red oak 5/4 #3C, 845/bf, \$.46/bf. (4) Red oak 6/4 # 2 C, 435/bf, \$.65/bf. (5) Red oak 6/4 # 3C, 888/bf, \$.39/bf. Will sell packs of about 500 bf separately. Contact: Thomas Kroll, Land Manager & Arboretum Director, Saint John's Abbey & University, New Science 108, Collegetown, MN 56321-3000; Phone: (320) 363-3126.
- FOR SALE (1) Northern white cedar components, 3x3, 4x4 & 2x6. (2) Northern white cedar full logs & half logs, 6, 8 & 10" stack height. (3) Tree length cedar house logs. Contact: Clayton

Huddleston, Indus Industrees, Inc., 2195 Co Rd 83 W, Birchdale, MN 56629; Phone: (218) 634-2270; Fax: (218) 634-2270; Email: industries@wiktel.com.

FOR SALE (1) Plywood, OSB, particleboard and/or MDF cut to size/shape according to your specification. High-end uses to lower grades. (2) Plywood blocks for pallets. Contact: Joe Campbell, Steel City Lumber Co, P.O. Box 36189, Birmingham, AL 35236; Phone: (800) 733-1907; Fax: (205) 733-1709; Email: joecampbell@bellsouth.net.

FOR SALE Northern white cedar products; (1) Log furniture material. (2) Round & sawn log home timber. (3) Lumber. (4) Paneling. (5) Fence posts. (6) Wood chips. (7) Bark & sawdust. (8) 4"-5"x8' rough cedar posts @ \$125/cord. Contact: Richard Hufnagle, Page & Hill Forest Products, Inc, 7556 County Rd 31, Big Falls, MN 56627; Phone (218) 276-2251; Fax: (218) 276-2352; Email: pagehill@citlink.net

FOR SALE (1) Approx. 10,000 BF white oak logs, 12 - 21' long. (2) Approx. 10,000 BF white oak logs, 8'6" long. (3) 5,000 BF basswood tongue & groove paneling. (4) 5,000 BF red oak tongue & groove paneling. (5) 2,000 BF 1/4 sawn red oak. Price negotiable on all 5 items. Contact: Jack Lewison, L-P Lumber, 330 So. Park, Mora, MN 55051; Phone: (320) 679-4092; Email: lewison@ncis.com.

Equipment For Sale

FOR SALE (1) Used inserted tooth saw blades. (2) Dealer for: Simonds, Pacific/Hoe, IKS, Piper, Euro, Corley, Helle, Hanchett, Cornell, Meadows, Miner Edger, Fricko, Oleson. Contact: Harry R. Schell, Harry R. Schell Sawmill Sales & Supplies, Inc, 601 W Park St, Blue River, WI 53518; Phone: (608) 537-2987; Order Line: (800) 462-5807; Fax: (608) 537-2032.

FOR SALE (1) Jackson Scragg Mill. (2) Jackson hydraulic log turner, stinger type arm, precise turning w/ pusher. Contact: Jackson Lumber Harvester Co, Inc, 830 N State Rd 37, Mondovi, WI 54755; Phone: (715) 926-3816; Fax: (715) 926-4545. Email: info@jacksonlbrharvester.com. Web: www.jacksonlbrharvester.com.

FOR SALE (1) Farmi-skidding winches for 3-point hitch tractors. Winches for 17-40 hp & 60-80 hp. (2) Forwarding log loading trailers. (3) Wood chippers. (4) Carbide saw chain. Contact: Dave, Carlton Saw & Machine, 1592 Olsonville Rd, Carlton, MN 55718; Phone: (218) 384-3521. Fax: (218) 384-3187.

FOR SALE (1) Bark processing plant; conveyor & hopper infeed, first big roller screen, Patz chain conveyor under screen, Patz inclined chain conveyor, second roller screen w/conveyor transfer, 40' Patz inclined chain conveyor, all required electric motors, starters, switches, wiring, etc. (2) Cornell blowers, edgers, trimmers, notchers, slabsaws, log cleaners, unscrambler, decks. (3) Valby wood chippers. (4) Farmi skidding winches. (5) Hitachi -power tools & chains. (6) Patz conveyors & belts. (7) Lacy- Harmer laser lights. (8) Danco rip saws. (9) Webster vibrating conveyors. (10) Jonsered chainsaws. (11) Dixon sawmills, edgers, conveyors, log turners, hydra-dogs, pallet notchers, debarkers, slab edgers, trimsaws, decks rollcases, small hydraulic loaders & trailers-with loaders for 4 wheelers. (12) Safe-T-Shelters storm shelters. (13) Over 100 electric motors & equipment. (14) Dixon line of sawmill & logging equipment. (15) Three sizes of circular sawmills. (16) Two sizes of edgers. (17) Mills & edgers stationary & portable. (18) Log turners. (19) Belt & chain conveyors. (20) Rollcases. (21) Log turners. (22) Hydra-dogs. (23) Pallet notchers. (24) Slab edgers. (25) Debarkers. (26) Multiple saw trimmers. (27) Custom built decks. (28) Small & medium hydraulic loaders & trailers Contact: Rusch Equipment Sales, 400 Rusch Rd, Antigo, WI 54409; Phone: (715) 627-4361; Fax: (715) 627-4375.

- FOR SALE (1) Carbide saw tips. (2) Notcher, sizer inserts & blanks. (3) Diamond & CBN grinding wheels. (4) Industrial knives, (5) Carbide tipped sawblades. (6) Saw sharpening machines, supplies etc. Contact: Joyce R. Mosher, ICE, PO Box 216, 5000 Main St, Drakes Branch, VA 23937-0216; Phone: (800) 424-3311 or (434) 568-3311; Fax: (434) 568-3421; Email: joyce@ice-va.com; Web: www.ice-va.com.
- FOR SALE (1) C4 TF forwarder. (2) C5 TF cable skidder. Contact: Barry Graber, Rockwood Log Homes, 3006 Pilot St, Brook Park, MN 55007; Phone: (320) 679-2183.
- FOR SALE Used FAS trac model #307 left hand band sawblade sharpener (sharpens 2-1/2"-7" wide bands, for blades 20' length and under) , \$4500. Contact: Ruth Bartlett, Harry R. Schell Sales & Supplies, Inc, 601 W Park St, Blue River, WI 53518; Phone: (608) 537-2987; Fax: (608) 537-2032.
- FOR SALE (1) Cleereman LH 2 block carriage, 40' track, 3 bearing husk w/150hp motor & starter, off bearer belt & insulated cab (Tyrone carriage feed w/ 75hp motor & starter). (2) HMC RH debarker w/cab, 18' log deck, 22' Patz bark conveyor. (3) Mellott #5 log turner 10hp, hydraulic power pkg. (4) Irvington Moore 10'-6 strand green chain, (5) Mellott 43' live roll transfer w/slab kick off, 10' chain transfer to edge. (6) Porter hydro cut off saw. (7) Cornell 500B double arbor gang rip. Contact: Terry Gross, JMB Pallet, PO Box 486, Plover, WI 54467; Phone: (715) 344-5015, (715) 421-5959; Fax: (715) 344-5467; Email: terry@jmbpallet.com.
- FOR SALE (1) TJ 230 5 ton forwarder, Hood 418 loader, Cummins bt, <500 hrs, 23.1x26 85%, \$30,000. (2) Bombardier muskeg carrier, Perkins diesel, 2-man enclosed cab, \$25,000. (3) Bombardier muskeg tractor, Detroit 3-53, \$18,000. (4) Rome forestry disc, \$5,000. (5) Rome bedding plow, \$5,000. (6) Marden roller chopper, \$5,000. (7) Four Reynolds heavy tree planters, split & solid crank axle. (8) Two scarification type V-blades to fit small dozer. (9) Weed badger, \$4,000. (10) Poly water tanks, 1000-2000 gallons. Contact: Rich Hendricks, Phone: (218) 340-0547 or (218) 723-1511; Email: rich@duluth.com.
- FOR SALE (1) 2000 Prentice 210 E. (2) 1998 Prentice 210E. (3) 1990 Self-propelled Prentice 410B. (4) 2000 JD 748GIII w/dual arch, grapple & winch. (5) 1998 JD 648G. (6) 1998 Hydra AX 511EX w/ Koehring saw head. (7) Portable sawmills: Hurdle, Meadows and Select modular and portable models available. (8) Chip-Pacs (9) Debarkers. Contact: Weber Forest Machinery; Phone: (615) 373-8809. Email: web4mach@aol.com.
- FOR SALE Harricana Rome 21" shear, head fits on JD loader, \$3,500. Contact: Richard Olson, 920 N Main, Thief River Falls, MN; Phone: (218) 681-3333.
- FOR SALE (1) Arasmith salvager hog w/50x50 opening. (2) Prentice model 150 stationary loader w/5th wheel. (3) Rodgers Un-nailer w/10" blades. (4) Rip-Jac over & under pallet dismantler. (5) Waechter band resaw. (6) Williams C-32 No-nife hog. (7) Morbark model 640 debarker. (8) Fastline log merchandiser. (9) Bronco pallet stackers. (10) Lauderdale Hamilton super chop pop up trimmer. (11) Newman chamfering machine. (12) Cornell double arbor resaw w/cut up system. (13) Cornell remote trim saw. (14) Cornell cant sizer. (15) Pendu diesel powered M5000 gangsaw w/log cabin tooling. (16) Pendu diesel powered A5000 double arbor resaw system. (17) Pendu A4000 w/cutoff. (18) Brewer gang saws. (19) Wilson 4 strand unscrambler w/corley package deck. (20) Woodpower grinder Model T-60. (21) Keystone stake pointers (22) Hempstead low speed whole pallet grinder. (23) Morbark waste recycler.

Contact: Bob Montgomery; R A Montgomery & Co; Phone: (484) 948-4089; Fax: (610) 678-2848; Email: ramco@juno.com.

FOR SALE (1) Denis 2000 stroke delimeter on 1187B Case, \$29,000 (firm). (2) 40 Drott feller- buncher w/ new 20" Timbco shear head & hoe bucket, \$20,000. Contact: Tim Fish, Roosevelt Lumber, 9639 State Hwy 11, Roosevelt, MN 56673; Phone: (218) 442-5441; Cell: 218-689-9475; Email: rlumber@wiktel.com.

FOR SALE Cable Skidders; (1) 1970 440A JD, \$10,500. Grapple Skidders; (2) 1993 518C Cat, new trans, \$40,000. (3) 1991 450B TJ, Cummins eng, \$18,000. (4) 1993 JD 548E, \$37,000. (5) 640 JD, single arch Young grapple, rebt eng & tran, \$19,500. (6) 2002 648G III, dual func, enclosed cab a/c, \$110,000. (7) 1988 648D JD, single function, rebt eng & trans, \$24,000. (8) 1986 648D JD, dual function, \$27,000. Crawlers; (9) 1995 D3CLGP, new undercarriage, \$33,000. (10) 1990 650G 6-way blade, \$35,000. (11) 1997 D6D LGP, P.O.R. Knuckle Boom Loaders; (12) 1998 160D BARKO 72" slasher, \$72,000 (13) 1993 1000B Morbark self-prop, carrier, pull thru delimeter, 60" circular slasher, \$55,000. (14) 1969 Brown semi trailer w/center mount loader, \$6,500. Trucks; (15) 1998 Peterbilt, 470 Detroit 18sp, \$36,000. (16) 1978 GMC 2 ton w/hydr hoist, flatbed dump, \$4,500. Delimeters; (17) Siiro delimeter/slasher, \$7,000. (18) 1985 125B Case w/3000 Denis, \$27,000. (19) 1995 CAT 320 w/3500 DT Denharco, \$79,000. Excavators; (20) 1990 JD 490D, \$27,000. (21) 1992 Mitsubishi MXR55, \$12,000. Feller-Bunchers & Shears; (22) 1989 775 Barko, 20" sawhead, \$35,000. (23) 1979 Drott 40, shearhead, \$17,000. (24) 1993 JD 590D w/18" Roto saw, \$27,000. (25) 1998 JD 653E w/20" Cameo sawhead, \$98,000. (26) 1996 720 Tigercat, 20" Koehring sawhead, cab & a/c \$59,000. (27) 1993 T445 Timbco, w/22" Quadco sawhead w/side tilt, \$95,000. (28) 1976 544B JD, 20" shear, \$21,000. (29) 1988 910 Cat, 17" shearhead, rebuilt trans, \$32,000. (30) 1987 411B Hydro-Ax \$20,000. (31) 1986 511B Hydro-Ax 6 BT Cummins, \$27,000. Wheel Loaders; (32) 4500 Ford backhoe, \$7,000. (33) 1992 410D JD backhoe, \$27,000. (34) 1981 644C JD, \$25,000. Miscellaneous; (35) CAT V80D 8,000# forklift, \$6,500. (36) 54" Slasher w/power unit, \$6,500. (37) 60" slasher w/power unit, \$14,500. (38) 20" Koehring sawhead to fit 643 JD, \$9,000. (39) 1997 Siiro slasher, 60" saw, \$9,000. (40) Featherlite flatbed semi trailer; aluminum, \$9,500 (each). (41) New 72" Hanfab slasher, P.O.R. Contact: Northern Timberline Equipment, Inc., 6000 Cty Rd 8, Littlefork, MN 56653; Phone: (218) 278-6203; Fax: (218) 278-6716.

FOR SALE Jackson lumber harvester stationary hydraulic sawmill, model IBM-40, complete w/track & husk. Includes: 125 hp motor w/electric panels, motors & starters, 18' two strand log deck w/stop & turner, 2 saw Tower edger, 21' live belt, 2 ea 52" & 1 ea 50" inserted tooth mill saws, 24' dead roll, pantograph, dial indicator, 5 head block carriage, hydraulic feed set, skidway & log turner, enclosed sawyer's control console. Sawmill mounted on full length 5"x12" I beams, \$16,400. Contact: Don La Tourelle, Cass Forest Products, PO Box 1008, Cass Lake, MN 56633; Phone: (218) 335-2694.

FOR SALE (1) 18" Roto sawhead w/ tilt, \$3,900. (2) 22" Roto sawhead w/ tilt, \$5,200. Skidders; (3) 1981 TJ 350 cable, 18.4 X 34" tires & chains, rebuilt 3-53 turbo, \$13,900. (4) 1989TJ 450B grapple, 30.5 X 32" tires & chains, \$29,500. (5) 1978 TF cable, C6D, 24.5 X32" tires & chains, \$11,500. (6) New skidder chains & used parts. Contact: Carl Huber, Huber Logging, PO Box 31, Mine Center, Ontario Canada POW1HO; Phone: (807)599-2835; Fax: 807-599-2822.

FOR SALE Profitable Minnesota wood chip mill, 10 acres with buildings, truck bays and chip storage. Contact: Mr. Robin Kuckyr, Business Services Inc., 3501 N. Causeway Blvd. # 810, Metairie, LA 70002; Phone: 504-846-4442; Fax: (504) 837-0123; Email: rkbsno@hotmail.com



Services and Miscellaneous

- SERVICES Reconditioning Montgomery hog teeth, anvils, rings & Zeno grinding machine cutters. Contact: G & G, 2525 Westbrook, Magnolia, OH 44643; Phone: (330) 866-9764; Fax: (330) 866-5225; Email: hgg9407@aol.com; Website: <http://www.ggrepair.com>.
- SERVICES Structural engineering, log & heavy timber frame homes, unusual foundation problems solved. MN & WI registration. Contact: John Wilkinson, Consulting Engineer, 604 2nd Ave N, Sartell, MN 56377; Phone: (320) 253-1019; or (563) 547-1078.
- SERVICES Will do custom sawing with a circular band saw. Contact: Loren Strei, 3835 121st Ave, Ortonville, MN 56278; Phone: (320) 839-2057.
- SERVICES (1) Will custom design & manufacture sawblades, carbide tips, notcher inserts & diamond wheels to meet your specifications. (2) Saw & tool sharpening. Contact: Joyce Mosher, International Carbide & Engineering, Inc., PO Box 216, Drakes Branch, VA 23937-0216; Phone (800) 424-3311; Fax: (434) 568-3311; Email: joyce@ice-va.com; Web: www.ice-va.com
- SERVICES Circular, band & carbide saw blade repair. Contact: Harry R. Schell, Inc., Harry R. Schell Sawmill Sales & Suppliers Inc., 601 W Park St, Blue River WI 53518; Phone: (608) 537-2987; Fax: (608) 537-2032; Order Line: (800) 462-5807.
- SERVICES Custom dry kiln services. Contact: Dave Crinnel, Arrowhead Wood Products, 1592 Olsonville Rd, Carlton, MN 55718. Phone: (218) 384-3325; Fax: (218) 384-3187.
- SERVICES Will do custom lumber sawing at any mill. Located 3 miles south of Elgin, MN. 30+ years experience. Contact: Dave Axley, Edgeway Lumber, 5210 Hwy 42 NE, Elgin, MN 55932; Phone: (507) 876-2780

MarketPlace Bulletin

The MarketPlace Bulletin is published three times annually by the Minnesota DNR Wood Products Utilization & Marketing staff and is distributed free of charge. It serves the wood industries of the state by providing relevant information on Minnesota's 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.iic.state.mn.us/finfo/luse/harvest.htm>. To begin receiving the bulletin or cancel a current subscription, contact Keith Jacobson at: (651) 296-6491 or by email: keith.jacobson@dnr.state.mn.us.

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Lance Sorensen, Lake City 651-345-3216 Email: lance.sorensen@dnr.state.mn.us

DNR Forestry Timber Auction Sales

Date	Auction Type	Sale Name	Location
5/13	Intermediate	Littlefork Area	Big Falls Community Building
5/13	Regular	Littlefork Area	Big Falls Community Building
5/17	Regular	Aitkin Area	Long Lake Cons. Ctr, Palisade
5/17	Intermediate	Aitkin Area	Long Lake Cons. Ctr, Palisade
5/26	Regular	Hibbing Area	Iron World, Chisholm
5/26	Intermediate	Hibbing Area	Iron World, Chisholm
5/26	Regular	Sandstone Area	Rutledge Community Center
5/26	Intermediate	Sandstone Area	Rutledge Community Center
6/01	Regular	Deer River & Effie Areas	Big Fork Community Center
6/01	Intermediate	Deer River & Effie Areas	Big Fork Community Center
6/04	Regular	Backus Area	Backus City Hall
6/04	Intermediate	Backus Area	Backus City Hall
6/07	Regular	Orr and Tower Areas	Orr City Hall
6/07	Intermediate	Orr and Tower Areas	Orr City Hall
6/08	Regular	Baudette Area	Baudette DNR Forestry Office
6/08	Intermediate	Baudette Area	Baudette DNR Forestry Office
6/09	Regular	Blackduck Area	Blackduck Senior Center
6/09	Intermediate	Blackduck Area	Blackduck Senior Center
6/10	Regular	Warroad – Wannaska Area	Grygla Community Center
6/10	Intermediate	Warroad – Wannaska Area	Grygla Community Center
6/17	Regular	Marked Hardwoods-Aitkin & Sandstone Areas	McGrath Forestry Office
6/22	Regular	Cloquet Area	Cloquet Forestry Office
6/22	Intermediate	Cloquet Area	Cloquet Forestry Office
7/06	Regular	Bemidji Area	Bemidji Area Forestry Office
7/06	Intermediate	Bemidji Area	Bemidji Area Forestry Office
7/13	Intermediate	Park Rapids – Detroit Lakes Areas	Park Rapids Envir. Ed. Building
7/14	Regular	Decorative Trees – Cloquet, Hibbing, Aitkin Areas	Downtown Floodwood Fair Building
9/16	Intermediate	Bagley Area	Bagley Area DNR Forestry Office



The Market Place
DNR Forestry
 500 Lafayette Rd
 St. Paul, MN 55155-4044
 Website: <http://www.iic.state.mn.us/finfoluse/harvest.htm>

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