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Timber Talk: Nebraska Forest Industry Newsletter

Nebraska Forest Service

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Nebraska Forest Service

Institute of Agriculture and Natural Resources

December 2016

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Lumber Market Reports

Northern

There have been significant rain events and flooding in parts of the Upper Midwest. Wet and muddy conditions have been affecting logging and could continue hampering logging in places until cold temperatures prevail. The impact on green lumber production has been negligible to this point. But, circumstances have altered buyers' purchasing plans for the next several weeks. Reported prices for most green whitewoods are stable this week. The only changes to the green figures are increases to the Red Oak listings. Kiln dried prices did not change much either, though interest in FAS Hard Maple remains extremely weak. To the contrary, markets for kiln dried Red and White Oak are strong, especially for #1C&Btr. The primary difference in demand for Oak compared to Hard Maple stems from Chinese customers pursuing Red Oak, whereas Hard Maple is dependent on domestic usage. Sales operations acknowledge end users in the US are not experiencing very strong business for manufactured goods, and many are purchasing only when necessary to replace inventories. Too, Northern US suppliers are contending with Canadian competition, as Canadians have a decisive currency exchange rate advantage.

Southern

The majority of sawmill operators in the Southern region are content with current log inventories. It appears green lumber production could be steady the first months of winter. Current restrictions on mill output are available outlets for low grade lumber and heart center products. Too, markets for residual products, such as dust and chips, are not absorbing total availability, which can restrict sawmill production. Demand for kiln dried lumber is strong from overseas markets, especially China. On the other hand, domestic business has not advanced at the same rate as new home construction and remodeling.

Appalachian

With two months remaining in 2016, many contracts indicate domestic hardwood lumber markets are limping toward the finish line. The solid wood residential flooring industry is arguably the busiest domestic market for grade lumber, and demand is decent from the truck trailer flooring and distribution yard sectors. However, shipments to cabinet, moulding, and wood component factories have reportedly slipped. Crosstie business is also off, which is a function of both seasonal slowing in tie installations and high inventories at treating plants. Finally, markets for framestock, board road, mat timbers, pallet lumber, and cants are saturated. In contrast are robust exports to China, Vietnam, and several smaller markets, which are giving business a firm feel despite the under-performing domestic market. Likewise, solid demand for Red Oak, White Oak, and Poplar is helping to mitigate the impacts of weakness in demand for other species like Cherry, Hickory, and Hard Maple.

(Source: Condensed from Hardwood Market Report, November 4, 2016. For more information or to subscribe to Hardwood Market Report, call (901) 767-9216, email: hmr@hmr.com, website: www.hmr.com)

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Service is implied.

Hardwood Lumber Prices - Green												
		F/	AS	S #1C				#2A				
Species	11/16	8/16	5/16	2/16	11/16	8/16	5/16	2/16	11/16	8/16	5/16	2/16
Ash	905	925	1055	1120	540	540	655	680	325	350	425	465
Basswood	860	860	885	885	510	520	555	555	270	300	310	310
Cottonwood	780	780	780	765	560	560	560	545	260	260	260	260
Cherry	1055	1055	1100	1100	690	700	800	735	385	385	435	430
Elm	650	650	650	650	420	420	420	420	300	300	300	300
Hackberry	530	530	530	530	480	480	480	480	305	305	305	305
Hickory	820	820	830	830	525	525	545	545	385	405	425	425
Soft Maple	1350	1395	1370	1370	855	890	890	890	485	510	520	520
Red Oak	1140	1120	1195	1145	730	700	700	655	500	490	490	500
White Oak	1630	1505	1435	1435	820	750	715	700	505	490	490	475
Walnut	2515	2515	2515	2455	1270	1270	1270	1270	715	715	715	730

Note: Lumber prices quoted in \$/MBF, average market prices FOB mill, truckload and greater quantities, 4/4, rough, green, random widths and lengths graded in accordance with NHLA rules. Prices for ash, basswood, northern soft grey elm, unselected soft maple, red oak and white oak from Northern Hardwoods list. Prices for cottonwood and hackberry from Southern Hardwoods list. Prices for cherry, hickory and walnut (steam treated) from Appalachian Hardwoods list. (Source: *Hardwood Market Report (HMR)*, above prices are from the 1st issue of the indicated month. To subscribe to HMR, call 901-767-9126; email hmr@hmr.com; or go to www.hmr.com.)

Hardwood Lumber Prices - Kiln Dried												
		F/	45	#1C			#2A					
Species	11/16	8/16	5/16	2/16	11/16	8/16	5/16	2/16	11/16	8/16	5/16	2/16
Ash	1420	1445	1580	1575	925	945	1035	1050	630	665	730	770
Basswood	1215	1215	1215	1215	760	760	770	770	495	510	510	510
Cottonwood	980	980	980	980	730	730	730	730				
Cherry	1740	1770	1770	1770	1140	1140	1150	1150	700	710	730	765
Elm												
Hackberry												
Hickory	1490	1530	1530	1530	1060	1075	1110	1110	810	810	855	855
Soft Maple	1805	1855	1830	1805	1185	1220	1220	1200	800	800	800	800
Red Oak	1610	1605	1630	1630	1120	1100	1040	1000	845	815	800	780
White Oak	2300	2220	2085	2030	1395	1295	1235	1235	970	910	870	855
Walnut	4070	4070	4070	4015	2100	2100	2100	2100	1360	1360	1360	1380

Note: Kiln dried prices in \$/MBF, FOB mill, is an estimate of predominant prices for 4/4 lumber measured after kiln drying. Prices for cottonwood and hackberry from Southern Hardwoods list. Prices for ash, basswood, northern soft grey elm, unselected soft maple, red oak, and white oak from Northern Hardwood list. Prices for cherry, hickory and walnut (steam treated) from Appalachian Hardwoods list. (Source: Hardwood Market Report (HMR), above prices are from the 1st issue of the indicated month. To subscribe to HMR, call 901-767-9126; email hmr@hmr.com; or go to www.hmr.com.)

Pallet Lumber - Green									
Dimension	11/16	8/16	5/16	2/16					
4/4 x RW	255	265	275	285					
5/4 x RW	290	300	300	300					
6/4 x RW	315	325	325	325					
4/4 x SW	340	360	370	395					
5/4 x SW	365	395	395	410					
6/4 x SW	380	410	410	425					

Ties (7x9) - Green								
Region	11/16	8/16	5/16	2/16				
Crossties								
Northern - 8.5'	25.5-27.25	25.5-28	25.5-28.5	25.5-28.5				
Appalachian (South) - 8.5'	25.5-30	25.5-30.5	25.5-31	25.5-31				
Appalachian (North) - 8.5'	25.5-29	25.5-29.5	25.5-30.5	25.5-30.5				
Southern (West) - 9'	27-33.5	27-33.5	27-34	27-34				
Southern (East) - 8.5'	26.5-32	27-32	27-33.5	27-33.5				

Note: Pallet lumber prices quoted in \$/MBF, average market prices FOB mill, truckload and greater quantities, rough, green, random widths and lengths graded in accordance with NHLA rules. Tie prices quoted in \$/piece, average market prices FOB mill. Prices for pallet lumber from Northern Hardwood list. Prices for ties from the respective regional lists. (Source: Hardwood Market Report (HMR), above prices are from the 1st issue of the indicated month. To subscribe to HMR, call 901-767-9126; email hmr@hmr.com; or go to www.hmr.com.)

Note from the Editor:

USDA and Nebraska Department of Agriculture (NDA) hosted informational meetings in late October to inform the industry about regulations related to the emerald ash borer (EAB) quarantine in place for Cass, Dodge, Douglas, Sarpy and Washington counties in Nebraska. While it was great to see and visit with a few Nebraska sawmills at this meeting, I wanted to pass along some of the discussion that took place at these meetings.

Regulatory Agencies

Both the USDA and NDA are tasked with enforcing the quarantine restrictions related to EAB. In Nebraska, USDA is the federal regulator tasked with enforcing quarantine restrictions and wood movement between states. NDA is the state regulator tasked with enforcing quarantine restrictions and wood movement within Nebraska. However, USDA and NDA have agreed that if you work with a staff member from one of these agencies to complete necessary compliance agreements, you do not need to go through the same process with the other agency. Completing a compliance agreement with NDA, will automatically get you a compliance agreement with USDA, and vice versa.

Compliance Agreements

These agreements identify the steps that a business or sawmill will complete in order for their products to become compliant and approved for movement out of a quarantine area. Once you can demonstrate that you are able to complete the required steps (selected by the business from a pre-approved list of compliance actions), your business will be approved and you will be set for one year. Both USDA and NDA stressed that they are interested in working with businesses to make the compliance agreement process as smooth as possible. They want to work with businesses to become compliant so that the impacts on the business are as minimal as possible.

Does your business need a compliance agreement?

If you are moving regulated products out of a quarantine area you will need a Compliance Agreement. Ash materials that originate from a non-quarantine county and move into a quarantine area, are then considered regulated articles. Also, if your business is outside of the quarantine but you receive raw material from within the quarantine area to produce your products, you then may need a compliance agreement as well. It is recommended that you contact NDA or USDA for more information.

Regulated Wood Products

The EAB quarantine regulates the movement of ash lumber (green), any living, dead, cut or fallen ash material (including logs, limbs, branches, stumps and roots), composted and uncomposted chips, bark and mulch of all hardwood species, and firewood of all hardwood species. If these items are intended for sale or movement from a quarantine area to a non-quarantine area, they must be under a compliance agreement. Below are comments about these products individually. First, here are a couple important reminders...

- "Mountainash" is a Sorus species and not a true ash. Therefore it is not a regulated item.
- All hardwood firewood and all hardwood woodchips and mulch are regulated, as opposed to just ash firewood and woodchips, due to the difficulty of identifying the species of wood included in a load of firewood or a load of woodchips.
- It was stated that "firewood" includes sticks 4 feet or less in length.

Ash Lumber (Green)

For clarification, this means green lumber from all ash species (*Fraxinus species*), not all lumber from green ash species (*Fraxinus pennsylvanica*). The options for producing compliant lumber include kiln-drying (using the approved ash kiln schedule), fumigation (using methyl bromide), heat treatment (in an approved facility) or debarking (removal of all bark plus a ½ inch of wood).

Maybe the simplest way to produce compliant green lumber is to remove all bark and wane from the lumber during sawing, essentially producing square-edged lumber. This would satisfy the "debarking" option. This could really impact operations producing grade lumber. Fortunately, in Nebraska there is very little or no National Hardwood Lumber Association grade lumber being produced. However, this method of sawing will likely reduce the lumber volume produced from each log for rough lumber sawmills as more wood will need to be removed. While this is likely the easiest method, it is important to understand the potential impacts on lumber output.

THE CHALLENGE:

Using Forest Residue from Forest Operations

By Waste to Wisdom, wastetowisdom.com

Federal forestland managers have identified 28 million acres of National Forest lands in the western U.S. that are characterized as having unnatural or excessive amounts of woody vegetation, leaving these areas prone to catastrophic wildfires and susceptible to insect attack and degradation.

In addition, approximately 68 million dry tons of forest residues produced during traditional logging and land-clearing operations go uncollected in the U.S. every year. Forest residues include unmerchantable trees, small-diameter trees, tops, limbs and chunks. These residues are often left in the forest or are collected into piles and burned.

Challenges

Why are forest residues either left or burned in the forest? Two factors are the high cost (approximately more than \$50/bone dry ton) of collecting and transporting these residues to end user markets, and the low market prices (approximately \$25-40/bone dry ton) paid for delivered forest residues.

Several studies have developed innovative forest biomass operations that effectively improve access to harvesting sites and economic efficiency. However, the inherent inefficiency of transporting low-density and high moisture content biomass feedstock to market still remains a fundamental economic barrier to its increased utilization.

Opportunities

New technologies that are capable of converting previously wasted or underutilized forest residues into high quality and sustainable bioenergy and useful bio-based products are emerging. By using biomass conversion technologies, we can add value to residues in the field while significantly reducing transpor-

tation costs.

Unmerchantable materials produced from fuel reduction thinning and restoration operations could be comminuted (i.e., chipped or ground up) to high quality feedstocks for the production of bioenergy and bio-based products. Integration of biomass conversion technologies with in-forest biomass comminution operations can provide an alternative to the expensive and inefficient long distance transport of high moisture, low energy density forest residues. While this concept has been discussed to a large degree within the literature, it has not been achieved because biomass conversion technologies have not been successfully deployed and the low cost production of high quality feedstocks from forest residues remains a significant challenge. Biomass conversion technologies can effectively convert comminuted forest residues into energy fuels with desired characteristics (high energy density, low or no moisture content, and high market value) within the forest, resulting in a significant increase in transportation efficiency and economic feasibility.

In addition, our project will examine improvements in logistics and the development of new tools for the collection and transportation of forest residues.

Benefits

Effectively utilizing forest residues can offset the costs of forest restoration and fire hazard treatments while facilitating follow-up forest management activities. Further, the use of these bio-based forest products can improve air quality, reduce greenhouse gas emissions, sequester carbon, amend soil, and create employment in rural forestry-dependent communities, while reducing the nation's reliance on imported fossil fuels.

2016 Tax Tips Bulletin Available

Dr. Linda Wang, National Timber Tax Specialist with the U.S. Forest Service, has finalized "Tax Tips for Forest Landowners for the 2016 Tax Year." This publication reviews the major Federal income tax laws to help you file your 2016 income tax return. Although tax laws on timber transactions are not common knowledge, they are an important part of the ongoing cost of owning and managing timber, engaging in forest stewardship activities, and complying with tax law.

The document can be found online at http://www. fs.fed.us/spf/coop/library/taxtips2016.pdf.

Nebraska Forest Industry Spotlight

High Plains Biochar By: Rural Electric Nebraska

It was while playing with his dog at Box Butte Reservoir, a simple piece of charred timber sparked an interest in Rowdy Yeatts of rural Chadron. In February 2012, Rowdy and his wife Christi moved to "the Table" south of Chadron and made the former Prairie Home School their new home. The Yeatts owned a marine construction business on Grand Lake in Northeast Oklahoma before relocating to Nebraska. Rowdy originally grew up in Casper, WY. and Christi in Chelsea, OK. "We met in college at Oklahoma State University in Stillwater. I graduated from OSU in 2000 with a Business Degree," explained Yeatts.

After moving to Northwest Nebraska, Yeatts was employed at Fuller Construction doing estimating and project management for projects such as the Chadron State Park renovations and the USFS energy efficiency renovation at their office in Chadron.

His career began to take a turn about a year ago after that moment at Box Butte. "I became interested in biochar about a year ago and started learning more about it, eventually making it in small quantities utilizing some of the waste in the area," said Yeatts. "The original kiln only made a few cups of biochar in a batch but it helped me understand the process of gasification."

Since that time of producing just a few cups in a batch, the Yeatts have scaled up their operations. Later this year they will expand yet again to a kiln that will be able to process over 1,000 tons of wood waste per month. "Both our current machine and the machine that will be delivered later this year are completely portable so we can take the machine to the woodchips," said Yeatts.

What is biochar good for? Watching so much of the waste in the region simply get piled up and burned really made Yeatts realize that there must be a better solution than that antiquated practice. "I found that neighboring states like Colorado were already utilizing wood waste from fires and beetle kill for biochar so it made perfect sense to try to do the same thing here. We have an abundance of wood waste in the state from invasive cedars in the eastern part of the state to an underutilized forest in the northwest part of the state including thousands of acres of burned



To learn more about biochar, visit their website at www.hpbiochar. com, or email Rowdy@HPBiochar. com, or call him at (308) 430-8213.

timber that's not suitable for much of anything at this point," said Yeatts.

Yeatts is anxious about the testing and projects going on across the state with tree planting currently going on in South Sioux City, Bellevue and North Bend. "We are also currently working with UNL and the Nebraska Forest Service to test biochar as a feed supplement for cattle," said Yeatts. According to Yeatts, this use is very popular in other places like Europe and has been shown to increase digestive efficiency, boost the immune system, improve growth and milk output, increase overall health, and even reduce methane emissions.

"This will be one of the first studies of its kind in the United States and we are looking forward to seeing how biochar can benefit cattle in the state. We have also been testing biochar for use in coal fired power plants to remove mercury from flue gas," said Yeatts. The initial results look promising and they are continuing to work with experts in the industry to develop that product. "We feel like utilizing biochar as a replacement for activated carbon is a huge opportunity for the state to utilize its wood and manure waste in a responsible way while helping protect the environment," said Yeatts.

Note from the Editor (continued)

If you are producing wood packaging material (pallets, shipping blocks, etc.) using ash wood and are already ISPM-15 certified, this certification can be used to produce complaint ash shipping materials. Remember that a compliance agreement is only necessary when producing lumber products from ash wood. It is easy to get wrapped up in the thoughts about business expenses for heat treating, debarking logs, etc. But the first question needs to be "am I producing lumber from ash wood?" If you are producing pallet wood, shipping material and cants from cottonwood, your lumber is not required to be under a compliance agreement, so your lumber is not impacted.

Woodchips and Mulch

However, if you are the mill mentioned above producing cottonwood pallet lumber, your wood waste (bark, slabs and flitches) can be considered regulated articles if they are turned into chips and mulch. As stated above, all hardwood chips and mulch are considered regulated articles. The compliance options for these products are fairly simple; the wood material can be composted using the USDA-approved compost methods or the material needs to be chipped or ground to less than 1 inch in 2 of 3 dimensions. In order to test this, USDA and NDA uses a handheld shaker-screen, they add a few hand fulls of your chips/mulch and see if all of the material fits through the screen. If so, then your product is compliant. If not, then your options may include using a smaller screen when grinding, possibly double grinding your products or turning up the RPMs on your chipper to produce smaller material. If you are struggling to meet this size requirements, there may be equipment maintenance that can be completed to produce smaller material, such as sharpening chipper knives.

Firewood

While lumber and mulch have a straight-forward path toward compliance, firewood is a bit more problematic. Approved treatment options for hardwood firewood are debarking, kiln-drying, heat treatment or fumigation. The debarking of firewood is largely infeasible and the kiln-drying, heat treatment and fumigation options likely come with a high initial cost. Here are a couple things to consider. First, be sure that your products need to move outside of the quarantine area, as movement inside of the quarantine area is allowed. Second, if you need to ship out of the quarantine look at where your markets are located and become more familiar with the EAB quarantines. If your markets are situated just outside of the current quarantine area, history tells us that quarantines traditionally expand fairly frequently or they expand as one large new area. When new finds are confirmed, these new areas are likely included in a larger quarantine in the near future.

Consider the following example... "Do I invest tens of thousands of dollars to develop a firewood kiln or heat treatment facility?" Next spring/summer EAB may be discovered in an area where you were preparing to send newly compliant firewood using your new kiln. However, the new find expanded the quarantine and now you do not need to kiln dry the firewood because it will now stay within the new quarantine. However, you have already made the investment. As there is no set methodology for how Nebraska will expand its quarantine, it is unknown when the next expansion may occur.

Business Liability

The last topic that stuck out was the concept of "who is liable for a regulated article leaving the quarantine without an agreement?" For instance, many sawmills or mulch producers have customers who pick up their wood products from the business location. If the sawmill is located within a guarantine, what happens if a customer moves the wood product out of the quarantine area without the producer knowing? It was agreed that the business really shouldn't be held responsible for the product leaving the guarantine. Whereas the customer is the transporter (which is the true offense) as the producer is simply the manufacturer, businesses will not be held responsible for the movement of the products picked up from their facility. It was mentioned that this would definitely be the case in the event that the sawmill made an obvious good faith effort to inform their customers, such as a sign near the business entrance. A consistent informational sign may be something that is developed in the future if businesses would like to post information at their business.

Alaska Airlines' first flight with biofuel made from forest residuals

National Association of State Foresters - November 15, 2016

Alaska Airlines made history flying the world's first commercial flight using a new sustainable alternative jet fuel made from forest residuals from the Pacific Northwest – the limbs, stumps and branches that are left over after a timber harvest or forest thinning of managed forests on private land.

The flight departed from Seattle-Tacoma International Airport to Reagan National Airport in Washington, D.C., powered by a 20 percent blend of the new, sustainable biofuel sourced directly from the Pacific Northwest.

The fuel for today's flight was produced by the Northwest Advanced Renewables Alliance (NARA), led Washington State University. NARA is a five-year initiative that unites 32 member organizations from the academia, aviation, private industry, and the government, that came together under a USDA grant to demonstrate the viability of producing alternative jet fuel from forest residuals.

The Four "P's" of Marketing Your Small Sawmill Business

By Terry Conners

Back in the mists of time, I remember my wife taking a Marketing 101 class from a professor at Virginia Tech. That was the first time I'd ever heard of marketing being broken down into something called "The 4 Ps"–Product, Place, Price, and Promotion. Some people have expanded on that list in the intervening decades, but just those four words will give anyone starting a business a lot to think about. Getting rid of the academic mumbo-jumbo, here's what those words might mean to us.

Product

Lumber should be produced according to the expectations of the buyer. For example, it should be flat and have a uniform thickness. The species should be identified accurately and, if appropriate, the lumber should be properly dried to the moisture content required by the customer. Lumber should be correctly sorted by species and by grade as desired by the customer.

Place

Before the Internet, "place" only referred to a physical location where customers could find your product. Even in the Internet age, place is still important. Your customers have to be able to easily find you, and your location must be properly zoned for the signs you want to put up to identify your business.

Price

In marketing, "price" might mean that customers are getting good value for their money. This doesn't mean that you will need to match the prices in the Hardwood Market Report-you probably won't be selling the truckload quantities that those prices are based on, and your costs might dictate that you charge more than larger mills. That doesn't mean you won't be able to compete. Many customers deal directly with producers, and you're providing intangibles such as personal service and a reputation for good work that customers are willing to pay for. It's not an exact analogy, but you might think of yourself as a vendor at a farmers market. People often decide to buy vegetables there not because the prices are better than in the supermarkets, but because they like supporting local businesses and they like dealing directly with the farmer.

Promotion

"Promotion" includes all elements that lead up to a sale. This includes conventional advertising as well as the advertising you do on social media. One aspect of promotion that is often overlooked is the effect of word of mouth. I've had occasions to find out that things I've said got passed along sequentially to at least three other people. This means that your reputation for good products, the cleanliness of your operation, your professionalism in dealing with customers, and the friendliness with which you and your employees treat customers must all be considered as important parts of how you promote your enterprise. You must market yourself just as much as you plan on marketing your products.

Source: Independent Sawmill & Woodlot Management, July 2016, Article by Terry Conners. For more information, visit the Sawmill & Woodlot website: www.sawmillmag.com

Trading Post

The Trading Post is provided as a free marketing service for forestry industry. Only forestry-related advertisements will be accepted. Please submit written ads to the Timber Talk editor at least 15 days before scheduled Timber Talk publication dates. Ads may be edited to meet space constraints.

For Sale

Sawmill. Sanborn Minimax band sawmill, new 80 hp Deutz motor with 232 hours, 36" log capacity, hydraulic-operated belt on/off table, hydraulic log cleaner, digital levels, new track system, straight angled pressure guides. Also includes 60 extra 6" blades, Armstrong filing room equipment, box of new grinding stones. \$30,000. Contact George Hawley, Home 620-473-3468 or Cell 620-365-9744, email: hawleylumber@gmail.com.

Sawmill. Mighty Mite bandsaw. 20 HP electric motor, tandem axles w/ brakes on one axle, 36" x 24' log capacity, (have cut 46" beams) hydraulic operation includes winch, knees, taper, near arm, dogging arms, far arm, dogging spike, log loading arms, and electric clutch and blade lift. Includes automatic blade sharpener, setting machine, 12 used blades and 4 new blades. Excellent condition. Never been used commercially. \$17,500. Contact: Gary Fisher, Crawford, NE. Phone: 308-665-1580; email: fisher@bbcwb.net.

Edger. Corley SN E536-054, chromed in-feeds and out-feeds (no visible wear), 6-cyl Deutz engine, laser lights. \$20,000. Contact George Hawley, Home: 620- 473-3468 or Cell: 620-365-9744, email: hawleylumber@ gmail.com.

<u>Timber Harvester.</u> HYUNDAI ROBEX 130. Cuts and delimbs. Works well on cedars. \$18,500. Call Todd Book, 712-251-4464.

Walnut Lumber. All dimensions. \$3.00 per board foot. Falls City, NE. Contact: Bruce Walker at 402-245-2031.

Wanted

<u>Wood Residue.</u> Slab wood, cutoffs, sawdust, mulch, bales, etc. Lincoln, NE. Call Scott Hofeling at 402-432-0806 or email scott@hofelingenterprises.com.

Logs and Slabwood. Cottonwood, cedar and pine. 4-26" diameter and 90-100" lengths. Below saw grade logs acceptable. Contact: American Wood Fibers, Clarks, NE at 800-662- 5459; or email: Pat Krish at pkrish@AWF.com

<u>Cottonwood Logs.</u> Veneer-quality cottonwood logs, 16-36" diameter, 7' and longer. Pick up service available. Contact: Barcel Mill & Lumber, Bellwood, NE 68624. Ask for Barton or Megan. Phone: 800-201-4780; email: bj@barcelmill.com.

Services and Miscellaneous

<u>Woodshop Services.</u> Millwork made from your lumber on my planer/molder. Chris Marlowe, Butte, NE 402-775-5000. Marlowepasture@nntc.net.

Sawmill Service and Supplies. Saw hammering and welding. Precision knife and saw grinding. Contact: Tim Schram, Schram Saw and Machine, PO Box 718, 204 E. 3rd St., Ponca, NE 68770, 402-755-4294.

<u>Used Portable Sawmills.</u> North America's largest source of used portable sawmills and equipment. Contact: Sawmill Exchange, 800-459-2148, website: www.sawmillexchange.com.