

Lumber Market Reports

Northern Area

According to many sales executives, 2024 is starting off better than 2023 did. Part of the reason for sales gains is that some secondary manufacturers and lumber distributors intentionally allowed inventories to fall at the end of last year. Most items were readily available at that time, and downstream demand was not particularly good. Increased kiln dried lumber shipments in the first month of 2024 have decreased suppliers' inventories. At the same time, poor logging conditions most of the winter, along with restricted pulpwood purchasing, have reduced log decks for area mills. On top of record low Eastern US hardwood production in 2023, preliminary data show mill output was not high in January either. Some end users are concerned about the availability of key species and grades moving into spring. In general, buyers are more assertive with grade lumber purchases. However, not all Northern species are moving well. Basswood and Aspen business is especially slow. The use of MDF, plywood, and non-wood products in cabinets, moulding, millwork, and other interior fittings and furnishings has pummeled demand for some items. On the other hand, Hard Maple, Soft Maple, White Oak, and some grades of Red Oak are in short supply, pushing prices higher. Markets for industrial products are decent. Pallet manufacturers are contending with weak finished goods prices, while tie treaters have increased on hand inventories.

ASH: Markets for Ash have firmed a bit. Low production and steady demand are driving business for this species. Reported prices for green 4/4 #1C&Btr are up, lifting the listings. Kiln dried inventories have edged down for #1C&Btr. Transactions point out higher pricing for 4/4 #1C that raises the listings and ranges. For Fas, changes are within the ranges. Markets for #2A are not as good as for #1C&Btr, though the published figures are in order.

ASPEN: Business for domestic hardwood product manufacturers is not very good. Furthermore, this species has lost market share to other materials. Despite low hardwood production, Aspen supplies are still readily meeting or outpacing the market's needs. Reported prices for green #1C&Btr are weak, though past decreases have the listings in order. On the other hand, information reduces the 4/4 #2A and #2B figures. Likewise, interest in kiln dried #1C&Btr is better than for #2A. The 4/4 #2A listings and ranges fall this week.

BASSWOOD: Many area mills have been dodging Basswood logs to the extent possible because of weak demand and soft pricing for the #1C&Btr grades, and particularly troublesome sales and pricing circumstances for lower grade lumber and cants. Green production is off and is more closely aligned to the market's requirements. Reported prices are unchanged this week, allowing the #2B&Btr listings to stand. Contrary to green supplies, kiln dried inventories are high relative to demand. Most sales companies indicate that interest in #1C and #2A is lethargic. While upper grade business is far from robust, it is better than for the common grades. Transactions point out sufficiently lower pricing to decrease the 4/4 #1C and #2A figures.

BIRCH: This week's surveys show demand from cabinet manufacturers was listed as fair by all respondents. Results for wood component and molding/millwork producers covered the entire spectrum from slow to good. Birch with better color characteristics is garnering its fair share of business, but off color material is, reportedly, difficult to move. Kiln dried prices were mostly stable this week, though the top sides of the 4/4 Fas ranges come down. Green production is low, and area mills are shipping developing supplies of good, unselected #3A&Btr. No changes are required to the published figures.

HARD MAPLE: Through January, Hard Maple production has been extremely low. Ground conditions for logging had not been favorable, and weak pulpwood markets are also preventing an increase in timber harvesting. As of last week, all sawmills surveyed reported either declining or level log decks. Weather conditions are becoming more favorable for accessing purchased timber, and log inventories will likely improve some over the next few weeks. For now, shortages of green Hard Maple are driving price gains. The 4/4 through 8/4 #1C&Btr listings are raised for each color designation. Shortages are prevalent for kiln dried stocks, as well, but buyers are finicky about color. White or good Unselected Hard Maple is moving well, while brown Hard Maple is challenging to sell. The kiln dried #1&2 White 4/4 Fas, 5/4 Fas, 8/4 Fas, and 4/4 #1C figures advance, as do the Unselected 4/4 and 5/4 Fas listings and ranges.

SOFT MAPLE: The same factors affecting Hard Maple supplies are impacting Soft Maple availability, too. However, transactions showed very few changes to green Soft Maple pricing this week. On the other hand, contacts agree that kiln dried #1C&Btr business has strengthened, at least for good color Soft Maple; #2A demand remains weak. Information raises the Sap&Btr 4/4 and 5/4 Fas figures, as well as the Unselected 4/4 Fas listings and ranges.

RED OAK: According to sales companies, Red Oak shipments increased in January. Some of the activity was booked in December for January shipments, while other orders were received last month for immediate release. Reported prices are firming and move the top sides of the 4/4 #1C&Btr ranges higher. Meanwhile, mills and resellers are shipping all of the green #1C&Btr they can produce, and reported prices are steady to slightly higher. On the other hand, low grade Oak markets are controlled, though information shows stable pricing.

WHITE OAK: High quality White Oak logs are difficult for area mills to obtain. Competition from stave and veneer mills has pushed log prices out of the reach of mills processing plain sawn White Oak. Green upper grade supplies are low relative to demand, and prices are responding. The 4/4 through 6/4 Fas&Sel listings are raised. Kiln dried inventories are

down, especially for #1C&Btr. Transactions point out increased pricing for 4/4 #1C&Btr, lifting the listings and ranges.

PALLET LUMBER, CANTS, TIES, & BOARD ROAD: Most all mills that produce hardwood pallet cants report controlled business for this item. Contacts also point out that demand for random width pallet lumber is even more restrictive than for cants or selected width pallet lumber. Reported prices for pallet cants and lumber are mostly unchanged, allowing the listings and ranges to stand.

Since most mills have not had an adequate supply of logs, total production has been down this winter, including railroad tie output. But there are expectations that better logging conditions will boost tie production in the coming weeks. Business for this item is steady, and

pricing is mostly unchanged.

Low production and weak demand have kept board road output down. Reported prices are table and hold the listing and range in check.

Southern Area

Snow, ice, and heavy rains are impacting the flow of logs to area mills. Sawmill operators are processing on hand logs but are concerned about future availability. In addition, production was down the week of January 16th for many primary manufacturers due to extremely cold weather conditions. Green lumber supplies in White Oak, Ash, Poplar, and #1C&Btr Cottonwood are not meeting demand.

ASH: Ash production was high during fall and early winter, providing end users with ample supplies. Prices responded to the abundance of both green and kiln dried lumber. However, cold temperatures and wet ground conditions are now limiting log availability and lumber output. Prices are shifting from a downward trajectory to a firm to higher position, though no changes are warranted to the green or kiln dried #2A&Btr figures.

COTTONWOOD: As noted in the opening comments, most area mills have limited supplies of Cottonwood logs, and green lumber output has declined. At the same time, demand for #1C&Btr is solid. Reported prices are up, requiring increases to the 4/4 and 5/4 #1C&Btr listings. Markets for #2A and #2B are not very good, though most vendors are shipping developing production. Kiln dried business is slightly better, though inventories are sufficient to satisfy buyers' needs.

SAP GUM: Tie business is holding up well, and area mills are cutting as many as possible, including from Sap Gum logs. However, demand for developing green #2B&Btr lumber is not particularly strong. Some suppliers are struggling to ship total lumber output, but reported prices are consistent with past weeks.

#2A&3A OAK: Both residential and truck trailer flooring manufacturers have ample #2A&3A Red Oak in process inventories. Purchasing has shifted to replacement needs. Many residential solid wood flooring producers have decreased finished goods production because of weak demand and declining prices. Contracted purchasing is pressuring green #2A&3A Red Oak prices and warrants decreases to the 4/4 through 6/4 listings.

RED OAK: Markets for green Red Oak are widely varied. Concentration yards and secondary manufacturers are purchasing steady volumes of #1C&Btr, while flooring producers are scaling back both purchased volume and prices paid. Information raises the green 5/4 through 8/4 Fas&1f listings but decreases the 4/4 through 6/4 #2A&3A figures. Kiln dried shipments have improved for many Southern sales companies. Inventories are edging down. Also, some higher pricing is noted, with increases made to the 4/4 #1C figures.

WHITE OAK: Log shortages have been the norm for this species for some time. Stiff competition for high quality logs has been an ongoing challenge for sawmills, but seasonally wet weather conditions have exacerbated the problem. Green White Oak production is low and is not meeting the market's needs for #1C&Btr. The 4/4 through 8/4 #1C&Btr listings are raised. Similar circumstances are noted for kiln dried stocks. Interest in #1C&Btr is best, with shortages and solid demand driving up the 4/4 and 5/4 #1C&Btr figures.

POPLAR: Information received by HMR, as recently as last week, showed kiln dried Poplar inventories were elevated. Based on conversations and surveys with industry sources this week, Poplar supply circumstances have changed. Decent January shipments and new orders for February shipments have decreased the volume of ready to ship Poplar. Prices have stabilized, with a few reports of higher pricing. However, no changes are warranted to the kiln dried #2A&Btr figures. Downtime from extremely cold temperatures and wet logging conditions are impacting sawmill production. As with kiln dried Poplar, green lumber prices are firming but are in line with the #2B&Btr listings.

FRAMESTOCK, CANTS, TIES, & BOARD ROAD: Buyers for upholstered furniture manufacturers understand that weather conditions will impact future supplies of well air dried framestock. However, there is enough material to meet short-term needs. Reported prices for Oak and Mixed Species are stable. Stock pallet business is highly competitive alongside the rise in available recycled pallets. Buyers are cautious with raw material purchases. Cant prices are in line with last week. Markets for railroad ties are absorbing developing supplies at prices within the published ranges. In limited trading, board road prices are stable.

Appalachian Area

Logging conditions are difficult in many areas due to recent snowfall followed by rain. While some sawmills have decent log decks, most do not. Furthermore, many mill operators have adopted a conservative pricing strategy on log and timber purchases even if it means running low on logs - some even to the extent of running out. These circumstances are keeping mill production historically low. Prices for a number of items that were softening not long ago are now firming up a bit by lack of supply more so than any uptick in demand.

ASH: Supply and demand for kiln dried Ash reached equilibrium in the fall and remained well balanced into December. However, production of this species has been quite low during and since the fall/winter holidays, causing supplies to tighten back up. Prices have transitioned from soft to steady for most items, with some gaining ground. The 4/4 kiln dried #1C&Btr and 8/4 #2A figures bump up this week, as do the top sides of the 5/4 #2A

ranges. Sawmills are having no difficulty finding outlets for green Ash production at prices consistent with the listings.

BASSWOOD: Consumption of this species has contracted in several markets over time, including the window blind, shutter, and moulding sectors. Increased use of alternate species and materials is largely responsible for reduced usage. Sawmills, concentration yards, and distribution yards are not eager to produce or purchase this species because it is selling poorly, particularly the common grades. A number of buyers and sellers that regularly reported transactions and prices in the past are no longer doing so because of the decline in Basswood trade. Information that is available keeps the green listings intact but drives reductions to the kiln dried 4/4 Fas and #2A listings and to the 5/4 Fas listings and ranges.

CHERRY: Market conditions for Cherry have not changed much in the last few weeks. Sales are generally anemic except to Chinese buyers, who are placing orders with longtime suppliers. Domestic end users are purchasing this species sporadically, if at all. Many distribution yards are stocking it in premium color selections but only in small quantities due to limited customer requests. Despite these circumstances, prices have stabilized amid very low production. All of the green and kiln dried listings and ranges are unchanged in this issue.

HICKORY: Demand for this species deteriorated last year and has not rebounded in early 2024. Residential wood flooring factories are using less, mirroring trends in finished goods sales. The same is true for cabinet manufacturers, though on a smaller scale. Sawmills are controlling production, to the extent possible, yet there is more than enough available to meet the market's needs. Green and kiln dried prices are well represented by the current listings and ranges.

HARD MAPLE: Many sales contacts indicate Hard Maple is now among their fastest selling species, second only to White Oak. The lack of supply is causing markets to become more energized even though actual consumption is static, at best. All that said, business is not as strong in the southernmost parts of the region, and sales of brown Hard Maple remain slow all over. The kiln dried #1&2 White 5/4 #1C and #2A listings and ranges advance this week. Previous increases have all the green and all the other kiln dried figures in order.

SOFT MAPLE: Comments about business for this species vary widely by grade and color. The upper grades are gaining traction in the marketplace. However, most contacts describe #1C sales as flat and #2A sales as slow. Furthermore, Sap&Btr material is moving better than brown and wormy Soft Maple, and red leaf is garnering more interest than silver leaf stock. Reported prices did not change much this week. Only the kiln dried Sap&Btr 6/4 and 8/4 #2A figures warrant downward adjustments.

#2A&3A OAK: The majority of surveyed sawmill operators now characterize demand from the residential wood flooring sector as slow. This is especially true with respect to Red Oak; some plants are still welcoming all the White Oak mills can send them. Meanwhile, demand from the truck trailer flooring industry has transitioned from robust to only fair over the last couple of months. Prices for #2A&3A Red Oak are trending down, whereas #2A&3A White Oak prices are mostly steady. However, no further changes are warranted after last week's reductions for Red Oak.

RED OAK: Demand for Red Oak has been steady from most domestic and international markets of late, apart from the aforementioned slowdown in purchasing by flooring plants. Nevertheless, reports point out firming prices for certain kiln dried items. Industry contacts attribute this to low Red Oak production last year that is constraining kiln dried supplies now. The 4/4 #2A&Btr listings and ranges are raised. Prices for all grades of Red Oak slipped late last year, and #2A&3A remain under pressure. However, #1C&Btr prices have stabilized in recent weeks as production has been low amid steady demand. All of the green listings remain intact.

WHITE OAK: Broadly speaking, sales of this species are limited more by supply than demand. Market energy for upper grade White Oak is especially strong and continues to drive substantial price gains. All of the green Fas&1f and kiln dried Fas listings and ranges advance in this issue, including the WHND 4/4 and 5/4 Fas&1f listings. Interest in #1C and #2A&3A is decent though not as strong as for the upper grades. The green and kiln dried common grade figures hold steady at previous levels.

POPLAR: Production of Poplar was high in December compared to most species, filling the supply pipeline and causing prices to soften. While these circumstances are still present in some areas, Poplar production has moderated in other areas, reducing overall green lumber supplies in the last 7 to 10 days. Most reported green prices are grouped around the respective listings. Kiln dried Poplar is moving at a fair pace domestically, mitigating the impact of slow exports. Information takes down the 6/4 and 8/4 #1C figures but leaves all the other listings and ranges intact.

WALNUT: Markets for this species are generally busier now than in late December and early January. Drying operations are reasserting themselves with green purchases. Inquiries and orders from Chinese customers have increased. At the same time, reports point out strong interest in Walnut logs for export, which is disrupting the flow of logs to some sawmills and holding down production. Amid these circumstances, prices are trending higher. The green 4/4 Fas&1f, 5/4 Fas&1f, and 4/4 through 8/4 #1C listings notch gains. The kiln dried 4/4 through 8/4 #2A figures also advance.

FRAMESTOCK, CANTS, TIES, & BOARD ROAD: Demand for solid hardwood framestock remains weak. Most furniture plants have ample inventories to support the sluggish rate of finished goods sales. Prices for Oak and Mixed Species framestock are well represented by the published ranges.

Supply and demand for pallet cants are somewhat more balanced now than late last year for a couple of reasons. First, some pallet plants increased purchases to make up for slow receipts over the holidays. Second, hardwood production has been extremely low the past 6 to 8 weeks. Cant prices are little changed from last week.

Shipments of 7x9 crossties from sawmills to treating operations are brisk. Most treaters are not backing off of purchases even though they gained a lot of inventory in the last year. Prices in observed transactions show a bit of erosion but do not warrant any changes to the ranges.

Markets for board road are not very good, yet supplies are manageable because mills are

not producing much. The listing and range are unchanged.

(Source: Condensed from *Hardwood Market Report, February 2, 2024*. For more information or to subscribe to *Hardwood Market Report,* call (901) 767-9216, email: hmr@hmr.com, website: www.hmr.com)

Hardwood Lumber Prices

	Hardwood Lumber Prices - Green											
		FA	S			#1C			#2A			
Species	2/24	11/23	8/23	5/23	2/24	11/23	8/23	5/23	2/24	11/23	8/23	5/23
Ash	1100	1065	1045	1075	595	580	580	570	355	355	365	355
Basswood	760	830	910	960	330	410	460	515	210	260	280	300
Cottonwood	840	800	800	780	620	590	590	575	260	260	260	260
Cherry	995	990	930	965	575	550	515	540	360	340	310	365
Elm	670	670	670	670	420	420	420	420	290	290	290	290
Hackberry	530	530	530	530	480	480	480	480	295	295	295	295
Hickory	865	865	925	1000	550	575	675	750	450	475	550	610
Soft Maple	1215	1060	1070	1215	670	575	585	700	360	325	335	405
Red Oak	1055	935	895	1025	710	665	650	735	545	545	545	545
White Oak	2280	1960	1725	1625	1005	880	815	795	585	585	585	585
Walnut	3000	2860	2300	2650	1870	1785	1430	1725	930	1055	790	1015

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), a bove prices are from the first issue of the identified month. To subscribe to HMR, call 901-767-9126; email hmr@hmr.com; or go to www.hmr.com.

	Hardwood Lumber Prices - Kiln Dried											
		FA	S				#1C		#2A			
Species	2/24	11/23	8/23	5/23	2/24	11/23	8/23	5/23	2/24	11/23	8/23	5/23
Ash	1585	1635	1635	1705	1025	1025	1075	1110	725	725	795	800
Basswood	1345	1440	1590	1700	560	610	725	850	470	515	595	650
Cottonwood	1075	1075	1075	1075	800	800	800	800				
Cherry	1575	1635	1440	1575	970	1000	945	1030	685	700	610	700
Elm												
Hackberry												
Hickory	1670	1670	1755	1690	1100	1100	1130	1260	910	925	990	1080
Soft Maple	1765	1605	1825	2035	1005	940	1085	1205	675	675	805	915
Red Oak	1525	1505	1525	1600	1055	1055	1055	1125	745	745	800	850
White Oak	3715	3265	3005	2605	1600	1460	1500	1410	1000	975	1015	1035
Walnut	4655	4330	4170	4440	2740	2700	2685	2875	1700	1680	1700	2030

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 first issue of the identified month. To subscribe to HMR, call 901-767-9126; email hmr@hmr.com; or go to www.hmr.com.)

Palle	Pallet Lumber - Green										
Dimension	2/24	1/23	8/23	5/23							
4/4 x RW	240	240	290	340							
5/4 x RW	275	275	320	395							
6/4 x RW	400	400	415	470							
4/4 x SW	330	330	360	475							
5/4 x SW	370	370	390	495							
6/4 x SW	455	455	470	525							

Ties (7x9) - Green								
Region	2/24	11/23	8/23	5/23				
Crossties								
Northern - 8.5'	35.00-	35-	34.50-	34-38.75				
Northern - 8.5	39.50	39.50	38.50	34-36.73				
Appalachian (South) - 8.5'	36.00-	36-42	36.25-	36.75-				
Appaiachian (South) - 8.5	42.00	30-42	42.00	42.50				
Annalaskias (Nasak) 0.51	34.50-	25.40	20.44	36.50-				
Appalachian (North) - 8.5'	40.00	35-40	36-41	41.50				
Sanda - Curado el	38-	38-	20.42.50	37.50-				
Southern (West) - 9'	42.50	42.50	38-42.50	42.50				
Southern (East) - 8.5'	38-	38-	38-42.50	37.50-				
Southern (cast) - 8.5	42.50	42.50	36-42.50	42.50				

Note: Pallet lumber prices quoted in S/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 S/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 first issue of the identified month. To subscribe to HMR, call 901-767-9126; email hmr@hmr.com; or go to www.hmr.com.)

NEW: Softwood Appraisal Bulletin

US Forest Service Region 2 covers Colorado, Kansas, Nebraska, North Dakota, South Dakota, & Wyoming.

REGION 2, ZONE 1, NW Intermountain Zone, SAWTIMBER
Current Appraisal Data Bulletin
BULLETIN NO. BU210124
Effective February 5, 2024, Until Superseded

BASE DATA PERIOD: 1st QTR CY23 – 4th QTR CY23
APPRAISAL BASE PERIOD (QTR, CY): 6-23
BASE INDEX: WWPA, December 2023 (2017-18 basis) 420.66
Average High Bid:(Base Period Price): LP&DF \$9.86; ES \$7.41; PP \$3.00; TF \$6.75

REGION 2, ZONE 1, NONSAW
Current Appraisal Data Bulletin
BULLETIN NO. BU210124
Effective February 5, 2024, Until Superseded

BASE DATA PERIOD: 4th QTR CY22 – 3rd QTR CY23	WWPA INDEX
APPRAISAL BASE PERIOD (QTR, CY): 6-23	NA
BASE INDEX:	NA
Average High Bid:	\$2.23

REGION 2, ZONE 1, STANDARD RATES (R2 FSM 2430, 2431.31a)					
Current Appraisal Data Bulletin					
BULLETIN NO. BU210124					
Effective February 5, 2024, Until Superseded					

Product	иом	Species	Standard ⁵ Rate	Min. Rate
Ski Area and other	Operations und	ler Special Use Permits ⁶		
Sawtimber (01)	CCF (03)	all conifer	\$4.77	variable ⁷
NONSAW (08)	CCF (03)	all conifer and aspen	\$1.00	\$0.25
Othe	er Convertible I	Products		
Sawtimber (01)	CCF (03)	all species	ABPP8	variable
NONSAW (08)	CCF (03)	all species	ABPP	\$0.25
Tee Pee Poles (03)9	each (09)	LP	\$0.50	\$0.25
Poles (03) - 4.00" to 8.00" diameter	CCF (03)	all species	\$2.50	\$0.25
Poles (03) - 8.00" to 12.00" diameter	CCF (03)	all species	\$3.00	\$0.25
Poles (03) - 6.5' length	each (09)	all species	\$0.50	\$0.05
Poles (03) - 8' length	each (09)	all species	\$0.75	\$0.05
Fence Stays (14) - 2.00" to 2.50" diameter	each (09)	all species	\$0.15	\$0.05
Fence Stays (14) - 2.50" to 4.00" diameter	each (09)	all species	\$0.25	\$0.05
Mine Props (05)	CCF (03)	all species	\$3.00	\$0.25
Mine Props (05)	each (09)	all species	\$0.75	\$0.05
Posts (06)	each (09)	Cedar (juniperus)	\$0.7 5	\$0.05
Posts (06)	CCF (03)	Cedar (juniperus)	\$9.50	\$1.00
Commercial Use Firewood (07)	cord (02)	all species	\$8.00	\$5.00
Biomass green cv (20)	ton (05)	all species	\$0.10	\$0.01
Biomass dry cv (21)	ton (05)	all species	\$0.25	\$0.01

Industry Thoughts/Quotes:

News and quotes about the industry and utilization... Excerpts from the articles that caught my eye and indicate a common theme I'll recap below. [Words in square brackets are summaries of adjacent text or background info]. (Links are provided should you want to read the entire thing.)

"Carbon Credits put timber industry at risk" New Hampshire Business Review https://www.nhbr.com/carbon-credits-put-timber-industry-at-risk/

Is this possibility everywhere or just in areas with timber tax, where if a landowner sells carbon credits and can't harvest timber for decades the municipality/state would be out the timber tax. But not only the tax dollars are at stake – but carbon credits amount to "a fundamentally different way of looking at our natural resources." A bill in the legislature was proposed to put a moratorium on selling credits until the impact of carbon credits could be studied – is the moratorium legal telling landowner what they can and can't do with their timber/carbon? It's a balance of property rights and public interest. Timber management must be considered in any carbon credit program if we want healthy functioning forests and not tinder boxes waiting to exhale.

Sharing a response I had from someone asking about making lumber from range grown cedar utilization.

Large bushy cedars growing in a pasture setting can be quite the headache processing to the point of being able to make lumber, but I love the fact you are asking as I believe all trees can be utilized. With the proper equipment it is feasible.... If you know this information, I apologize, I want to cover it all from a to z.

I've been investigating wood processing equipment that may make pasture/range grown cedar utilization more feasible, as delimbing by hand is not time efficient. Of course only the largest of the cedar would merit milling for lumber, i.e. main trunk is at least 8", preferably 12+" and minimum 6' in length. Smaller diameter can be milled, but again is not very efficient on a band sawmill, shorter pieces can be 'milled' on a shop bandsaw for craft wood, or used in turning. Putting 8-12" logs on a band sawmill could net cedar shingles, planks for grilling and maybe cedar blocks for dresser drawers, though some people only want aromatic cedar for those and Eastern redcedar does not 'cut it'.

A delimber is a piece of equipment where the bole of the tree is pulled thru knives or past chain flails that take all the branches off. Some then have a blade to cut the bole to length. Stroke harvester heads and stroke delimbers are examples of the high end – attachments to excavators or self propelled. Static delimbers are simpler, bolted onto a trailer or self standing where a dozer, tractor or skid steer can pull the bole thru. There are a couple smaller stroke delimbers that are 3-point attachments for larger tractors.

Links to a few examples: <u>Danzco</u> static delimbers; <u>Kesla 40LFe</u>; <u>Arbro Stroke</u>

Once delimbed, cedar would typically be stacked to dry out a bit so the sap isn't an issue while milling. A processor near Grand Island lets them sit for a year, then any knots in boards are less apt to shrink more and fall out of the finished product. Log bunks should be elevated so as not to be in contact with soil to reduce decay possibility. Boles 4-8" can also

be run through a peeler and you'd have cedar posts, though most will have little heart wood (the red) that makes them more rot resistant. They could be pressure treated to add more value. We have a Central Nebraska Wood Preservers in Sutton. They "specialize in the pressure treatment of wood to provide quality builder-grade lumber that is long lasting, safe, and most cost effective to other building materials such as wood composite, aluminum, steel, or concrete. Our lumber products provide the natural beauty and versatility of wood without any of the hassle, including susceptibility to mold, pests, rotting, and decay." www.nebraskawood.com

NFS has some grant funds that can assist in the cost of timber stand improvement and wildland fuels reduction, both need to leave a forested stand after treatment is completed. Game and Parks has funding to assist landowners remove cedar from range and pastures where all cedar can be removed. In both cases, the material removed during treatment can be utilized, and I prefer it that way, but very little makes anything beyond chips and mulch. I recently had a request for a business that produces cedar chips in bulk, so some smaller trees once delimbed and chipped, would make clean cedar chips for landscaping.

Utilization Events and Resources

Biochar - I attended the 2024 North American Biochar Conference in Sacramento, CA February 12-16 and came back with my brain swimming from all the information. Watch for more information or call me to chat.

BIOCHAR FROM HANDPILES! No equipment needed, though a hand rake is a good idea.USFS just publised a how-to document:

https://www.fs.usda.gov/research/rmrs/understory/making-biochar-hand-built-piles

BIOCHAR SAMPLES (still) WANTED (from an email recieved)

The following is a joint message from the US Biochar Initiative and the USDA Agricultural Research Service and National Resources Conservation Service teams about expanding the Biochar Atlas project to support US producers and distributors.

Hello,

The US Biochar Initiative and USDA Agricultural Research Service (ARS) seek your assistance to help build a stronger biochar industry. We request samples of your biochar that will be analyzed by USDA ARS scientists according to International Biochar Initiative testing protocols. Results from these analyses would be provided to you and then may be incorporated into the national Biochar Atlas tool which is currently under development.

Your participation in this process will:

- · Help grow awareness of biochar among agricultural producers
- Support development of the Biochar Atlas, a biochar decision-support tool

- · Help improve biochar laboratory analysis methods
- Provide you with FREE biochar analytical data completed by USDA ARS

We encourage interested US producers to contact **Rachel Basheieri**, Biological Science Technician at USDA ARS, to arrange sample shipments: **rachel.baschieri@usda.gov** or +1 (541) 738-4168.

About the Biochar Atlas

The Biochar Atlas is an online biochar decision support tool being developed by <u>USDA</u>

<u>Agricultural Research Service</u> (ARS) to expand information access about biochar and biochar producers to US agricultural producers. The website for this tool is currently under development, but it will be modeled on the existing <u>Pacific Northwest Biochar Atlas</u>. The Biochar Atlas is an on-going collaboration between the USDA ARS, and the <u>US Biochar Initiative</u>, American Farmland Trust, Oregon State University and Washington State University.

History of the Biochar Atlas

The project began as the regional Pacific Northwest Biochar Atlas decision support tool for growers applying biochar. The National Resource Conservation Service is funding the expansion of the Atlas to support implementation of **NRCS Practice Standard 336** which provides cost share to apply biochar as a soil amendment to increase soil carbon content.

USBI, in collaboration with our ARS partners are now working to expand the Biochar Atlas to support the entire United States focusing on the effectiveness of different biochars for meeting site-specific crop and soil needs. The tool is designed to guide growers to regional biochar producers who can supply effective biochars. Participation in this tool may help drive revenue as part of your go-to-market strategy.

Your Help is Critical

To grow the Biochar Atlas we are requesting physical biochar samples from all biochar producers across the United States creating biochars from a range of feedstocks using different production technologies. (This program is only available for biochar produced in the US and qualified territories.)

For each raw biochar sample, USDA ARS laboratory technicians will conduct physiochemical analysis to classify the product according to the International Biochar
Initiative (IBI) Classification System which includes carbon storage value, fertilizer value, liming value, and particle size distribution, and other parameters in the table image below.

Analysis	Method				
Ultimate	ASTM D3176				
Proximate	ASTM D1762-84				
CTO-375	Gustafsson 1996 & Zencak 2007				
Inorganic C	20% phosphoric acid				
DOC/DIC/TDN	Water extraction				
GC-MS sorbed compounds	ASTM E2154-15a				
Functional group characterization	FTIR				
BET-N2 surface area	ASTM D6556-21				
Particle size	Progressive dry sieving				
	& Scanning Electron Microscopy (SEM)				
Water release curve	ASTM D6836-16				
Total nutrients	HNO3 and H2O2 Microwave digestion, ICP				
CaCO3-Eq	1M HCl extraction, NaOH titration				
Extractable P	2% formic acid extraction				
pH & EC	1:20 water slurry				
NO3 ⁻ & NH4 ⁺	2M KCl extract, spectrophotometry				
Higher heating value	ASTM D5865-12				
TGA/DSC	ASTM D5142				

The results of these sample analyses are not intended to be directly applicable toward USDA or IBI certification. Instead, these analyses will be conducted to include product data in our database and for making biochar product/application recommendations to users of the Biochar Atlas, and to provide data to US biochar suppliers. At this time, we are requesting physical samples, and authorization to analyze those samples according to the methods listed below. Before any sample analysis data is incorporated into the Biochar Atlas website we will request further authorization from you.

There is no fee to participate in this program beyond the cost of sample shipping. The laboratory analysis of your biochar is free and results will be provided to you. Additionally, we offer a free consultation to discuss analysis/classification results with you, and no data will be included in the Biochar Atlas tool without future authorization from you.

Sample collection instructions and delivery details found here:

http://www.pnwbiochar.org/home/submit_sample/

Do not delay! Join in this opportunity now. Contact **Rachel Baschieri**, +1 (541) 738-4168, to arrange sample delivery for inclusion in this important Biochar Atlas program.

We appreciate your participation and look forward to building the biochar industry in the US with your assistance.

Publications

We just developed several factsheets for various industries and how biochar can be incorporated – for example to change one ingredient to a renewable resource. Watch for

Spanish translations of each and a new how-to interpret biochar analysis report currently in the pipeline.

Find them on NFS website: https://go.unl.edu/biochar

Different Products - New Markets

Ever have an idea for a wood product you haven't seen in production? Let's chat about it. Give Kim a call/email!

Timber Sales

We are exploring the idea of a webpage that would have sales and where hazardous fuels / forest stand improvement projects are occurring to facilitate the utilization of all material being removed from our forests. This would allow anyone with 1 tree to hundreds of acres to get the word out. Please email or call Kim to share your input on this effort. Timber Talk would continue to have formal timber sales listed.

Walnut					
Lumber 1*	504 bf	NFS Forester	Doug Garrison	402-796	-2208
Lumber 2*	519 bf	Kim Slezak	13550 US-34		
Lumber 3*	1,235 bf		Malcolm	NE	68402
Craft	69 bf	Apraisal Date:	Location:	Lancaste	er County
Total bf*	2,258	March 1, 2024			

Trees cut. Logs are laid out in a pasture. NRD building a dam and these were fallen late February and dragged away from construction area. Bucking for grade not completed. 29 of 86 logs plus tops/forks are craft (11 craft not measured due to time constraints est 90 bd ft). Craft log: range from small and curvey to just not big enough to grade as Lumber 3 (avg small dib 7, avg length 15').

Forest Products Specialist Kim Slezak kslezak2@unl.edu 402-429-6931



A Tree's best life is when it's upright, **green**, and growing. When that life is over, give it a 2nd life.

As a forest product.

Questions? Contact us

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