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NEBRASKA FOREST SERVICE

TIMBER TALK

Nebraska Forest Industry Newsletter

Nebraska Forest Service | Institute of Agriculture and Natural Resources | University of Nebraska–Lincoln

September 1, 2010 | Vol. 48, No. 3

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Editor: Dennis Adams
Graphic/Layout: Anne Moore

The Nebraska Forest Service publishes ***Timber Talk*** four times annually (February 1, June 1, September 1, and November 1) to serve the forest industry of Nebraska. All questions and correspondence concerning ***Timber Talk*** should be directed to: Dennis M. Adams, ***Timber Talk*** Editor, Nebraska Forest Service, University of Nebraska, 203E Forestry Hall, P.O. Box 830815, Lincoln, NE 68583-0815. Phone (402) 472-5822, FAX (402) 472-2964.

E-mail: dadams2@unl.edu.
Website: http://www.nfs.unl.edu
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Lumber Market

HARDWOODS

NEWS

Northern. Parts of the upper Midwest have experienced torrential downpours and flooding this summer. A much broader area of the North Country has suffered from intense heat and humidity. These extreme weather conditions have been a major factor in limiting logging activity and reducing sawmill production. Constricted green lumber production also has prevented widespread gains in kiln-dried inventories. This seems to be the critical point about the current supply situation. Despite underperformance of sawmill production and lean inventories, certain items have been slow to sell, causing supplies to grow. Furthermore, most inventory gains have been in high-valued items, where even low volumes extract substantial working capital from day-to-day operations. By the large, inventories are considered to be at manageable levels and have not been disruptive to ongoing business.

Southern. The market shows steady increases in raw materials supplies throughout the hardwood pipeline. In-process inventories are adequate. However, activity for secondary processors is mixed. Orders for finished goods remain soft; cabinet, moulding, and millwork producers, reliant on #1C & Btr stocks, are controlling receipts of green and kiln-dried hardwood lumber. Additionally, export sales and shipments have cooled, especially to China. In contrast solid wood flooring and truck trailer flooring manufacturers continue to pursue green and kiln-dried #2A & 3A Oak.

Appalachian. Because of the severity of the economic downturn, sawmill operators focused on surviving the drastic slowdown in business. The larger picture of hardwood markets shows a significant shift during the past several years. For instance, estimates of consumption by primary US hardwood markets in 1999 show approximately 40% of the total volume was used for industrial purposes, and the remaining 60% was used by grade lumber markets. Through June of this year, those numbers have reversed. Another major shift in US hardwood lumber usage involves exports. The importance of export markets to hardwood lumber suppliers cannot be overstated. In the first six months of 2010, exports made up 33.1% of all grade lumber markets and 42.4% of mid- to upper-grade activity. Compare these numbers to 1999, when export volumes accounted for 19.1% of the mid- to upper-grade markets, 15.6% of all grade lumber markets, and a 9.3% share of total output. Whether a green or kiln-dried supplier, overseas markets are critical to absorbing total output. Information shows steady business to Europe, Canada, Vietnam, and many other Southeast Asian markets. Business to China has slowed but China's potential as a consuming market is huge. Meanwhile, domestic demand has followed residential construction and remodeling activity, which remains at historically low levels.

(Source: Condensed from *Hardwood Market Report,* August 21, 2010. For more information or to subscribe to *Hardwood Market Report,* call (901) 767-9216, email: hmr@hmr.com, website: www.hmr.com)

The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by the Nebraska Forest Service is implied.

Hardwood Lumber Price Trends—Green

	FAS				#1C				#2A			
Species	**6/10**	**3/10**	**12/09**	**9/09**	**6/10**	**3/10**	**12/09**	**9/09**	**6/10**	**3/10**	**12/09**	**9/09**
Ash	785	705	675	665	550	485	460	450	395	355	345	325
Basswood	730	700	685	685	385	360	330	330	205	205	205	205
Cottonwood	605	605	605	605	405	405	405	405	220	220	220	220
Cherry	1530	1530	1530	1530	655	655	625	625	330	330	320	320
Elm (No. soft grey)	635	635	635	635	420	420	420	420	235	235	235	235
Hackberry	475	475	475	475	455	455	455	455	265	265	265	265
Hickory	640	615	615	615	530	500	500	500	405	375	350	350
Soft Maple (UNSD)	1000	960	960	960	600	545	505	505	325	300	260	260
Red Oak	1135	1060	935	845	770	665	610	525	575	470	450	430
White Oak	1035	1010	940	940	645	570	500	490	500	395	360	350
Walnut	1975	1820	1800	1800	1025	850	765	765	605	425	360	360

Note: Hardwood prices quoted in dollars per 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, soft maple-unselected, red oak and white oak from Northern Hardwoods listings. Prices for cottonwood and hackberry from Southern Hardwoods listings. Prices for cherry, hickory and walnut (steam treated) from Appalachian Hardwoods listings. (Source: *Hardwood Market Report Lumber News Letter*, last issue of month indicated. To subscribe to Hardwood Market Report call (901) 767-9126, email: hmr@hmr.com, website: www.hmr.com.)

Hardwood Lumber Price Trends—Kiln Dried

	FAS				#1C				#2A			
Species	**6/10**	**3/10**	**12/09**	**9/09**	**6/10**	**3/10**	**12/09**	**9/09**	**6/10**	**3/10**	**12/09**	**9/09**
Ash	1090	1060	915	915	850	775	685	675	685	650	590	590
Basswood	1000	990	875	875	575	550	500	500	415	415	385	395
Cottonwood	740	740	740	740	545	520	510	510	—	—	—	—
Cherry	2260	2260	2260	2260	930	890	860	860	605	565	555	555
Elm (No. soft grey)	—	—	—	—	—	—	—	—	—	—	—	—
Hackberry	—	—	—	—	—	—	—	—	—	—	—	—
Hickory	1090	1030	985	985	915	865	825	825	780	735	695	695
Soft Maple (UNSD)	1315	1340	1340	1355	830	785	735	725	595	555	525	525
Red Oak	1535	1380	1210	1150	1140	965	820	785	850	760	620	610
White Oak	1605	1540	1360	1340	920	865	740	715	765	695	615	595
Walnut	2930	2705	2690	2670	1635	1450	1340	1320	1010	795	755	755

Note: Kiln dried prices in dollars per MBF, FOB mill, is an estimate of predominant prices for 4/4 lumber inspected and graded before kiln drying. Prices for cottonwood and hackberry from Southern Hardwoods listings. Prices for ash, basswood, Northern soft grey elm, soft maple-unselected, red oak, and white oak from Northern Hardwood listings. Prices for cherry, hickory and walnut (steam treated) from Appalachian Hardwoods listings. (Source: *Hardwood Market Report Lumber News Letter*, last issue of month indicated. To subscribe to Hardwood Market Report call (901) 767-9126, website: www.hmr.com.)

Softwood Lumber Price Trends

Editor's Note: *Due to organizational restructuring, the monthly "Inland Grade Price Average Report" was discontinued by WWPA as of April, 2010. Thus, the softwood Lumber Price Trends column will be discontinued in Timber Talk until a suitable replacement is identified.*

	Selects[1]				Shop[2]				Common[3]				Dimension[4]			
Species	**4/10**	**3/10**	**12/09**	**9/09**	**4/10**	**3/10**	**12/09**	**9/09**	**4/10**	**3/10**	**12/09**	**9/09**	**4/10**	**3/10**	**12/09**	**9/09**
Ponderosa Pine*	775	765	710	NA	NA	456	NA	NA	452	489	461	NA	NA	NA	NA	NA

*Rocky Mountain Ponderosa Pine
NA = Not available due to insufficient producers.
[1]Selects = D and Btr Selects, Stained Select, Mld and Btr.
[2]Shop = 4/4 Factory Select - #2 Shop.
[3]Common = #2 and Btr Common.
[4]Dimension, Timbers and studs = Std and Btr, #2 and BTR Dimension and Timbers.
Note: Average Softwood prices quoted per MBF rounded to nearest dollar, FOB mill, KD. This information is presented to indicate trends in the softwood lumber market. Actual prices may vary significantly from prices quoted.
(Source: Excerpt from *Inland Grade Price Averages,* Western Wood Products Association (WWPA)for the month indicated. To subscribe contact WWPA, phone: (402) 224-3930, website: ww.wwpa.org).

Timber Stumpage Prices

The Nebraska Forest Service does not have a reliable system of collecting data on timber stumpage prices paid for Nebraska timber. Since current timber stumpage price information would be useful to landowners, loggers, sawmills and forester's in Nebraska, timber stumpage price information will be summarized from selected states and periodically presented in Timber Talk. Although this data is not collected from Nebraska timber sales, it may serve as a general guide in tracking stumpage trends. Prices quoted in $/MBF.

	(1) Illinois (Nov. 2009 - Feb. 2010)		(2) Missouri (Jan. - March 2010)	
Species	**Sawtimber**	**Veneer**	**Sawtimber**	**Veneer**
Ash	100-160 (140)			
Basswood	70-160 (100)			
Cherry	240-300 (260)	100-1340 (540)		
Cottonwood	20-120 (70)			
Elm	20-150 (80)			
Hackberry	20-150 (80)			
Hickory	100-240 (140)		*110-110 (110)	
Soft Maple	90-250 (120)			
Red Oak	200-340 (230)	100-1830 (560)	165-165 (165)	
White Oak	250-400 (290)	100-2340 (1130)	85-85 (85)	
Sycamore	50-100 (80)			
Black Walnut	400-1500 (650)	200-3000 (1780)	415-415 (415)	1665-1665 (1665)
Redcedar				

(1) Source: Illinois Timber Prices. Stumpage price range for Sawtimber reported from the Prairie Unit (Zone 3). Sawtimber price average, in parentheses, and veneer price range and average reported from Statewide statistics. Doyle Scale.
(2) Source: Missouri Timber Price Trends. Stumpage price range and average, in parentheses, reported from the North Region or Statewide (indicated with *) statistics. International 1/4" Rule.

TCD Update

Editor's Note: *Thousand Cankers Disease (TCD) of black walnut has been discovered in Tennessee. It was previously known only in the western U.S., but now has spread to the native range of black walnut in the eastern U.S. In what now appears to be a futile attempt to prevent the spread of TCD from the west, Nebraska recently enacted a TCD quarantine that prohibits the movement of walnut materials into Nebraska from the eight western states currently infected with TCD. Kansas also enacted a similar quarantine. Below is some blunt correspondence from an entomologist in Colorado concerning the discovery of TCD in Tennessee.*

I have the distinct displeasure to have to announce that thousand cankers disease of walnut has been confirmed from Tennessee. This was first identified about 10 days ago with a sample we received from Knoxville, but formal announcement has been pending the Tennessee Department of Agriculture's wish to delay announcement for further confirmations. As this has been done, and I see an AP report on the internet, I think that we can now let it be generally known.

The known infestation is in and around Knoxville. As this is a fairly recent find, the extent of the infestation has not been delimited. But, the extent of the infestation suggests that this disease (i.e., the walnut twig beetle and its associated fungus, Geosmithia morbida) has been there for a decade or more.

This is a disaster of tremendous proportion. It has been my deepest hope — clearly a naive hope — this problem would stay bottled up in the western states, where black walnut, Juglans nigra is planted, but not native. I had long ago given up that black walnut would survive in the West and that is a sad situation, but not tragic. Now that it is irrevocably established in the center of the native distribution of Juglans nigra there are no geographic/ecological barriers to prevent its ultimate spread throughout the U.S.

Furthermore, the fact that the disease appears to be progressing as a lethal tree killer in Tennessee as it has been doing for 10-20 years in the Rocky Mountain States answers the question as to whether this is a regional problem.

It also suggests that there may well be many other infestations in the Midwest that have gone undetected. This is a very difficult disease to detect in early stages. Apparently in Tennessee, as in our area, what attracted attention was plantings that showed symptoms of apparent drought stress. But it is not drought stress nor related to drought — it is Thousand Cankers disease. So I encourage everyone in OrnaEnt to get out and check black walnuts more carefully.

(For some help with this situation we have a web site: http://www.colostate.edu/Depts/bspm/extension%20and%20outreach/thousand%20cankers.html. There are sheets on diagnosis, Questions and Answers, and a Fact Sheet — that needs a bit of updating. Also links to pictures and Powerpoint Talks, including the version of "Nightmare on Walnut Street" that I presented at the ISA Meeting last week in Chicago.)

I am assuming that there will now be a scramble to have state quarantines become a reality. As I understand it, following Missouri's lead, that Nebraska, Kansas, Michigan, and Indiana have or are in the process of enacting state quarantines that restrict movement of certain Juglans materials that originates from TCD-affected states.

Meanwhile, the agency that long ago should have taken the lead on creating a coordinated response to this problem. APHIS, has turned its back on this issue. Apparently, just a few weeks ago they again decided not to become involved in TCD since this problem originated within the borders of the U.S. (It is a host transfer problem arising when the beetle and fungus jumped from a resistant host, Arizona walnut, into susceptible host Juglans. Similar to how varroa mite, Colorado potato beetle, boll weevil, apple maggot . . . developed as pests.) Apparently APHIS has too many responsibilities chasing imaginary problems such as light brown apple moth and karnal bunt to deal with issues that will profoundly disrupt the economy and ecology of the U.S.

And this disease is a deal breaker. It is relatively slow to develop, at least compared to DED or EAB, but its progress will be inexorable. My guesstimate from watching it in urban settings is that about 30 years after this is introduced into a city all the black walnuts will be dead. That is based on the disease taking 10-20 years to show symptoms after the initial point infestation and 10-15 years for it to progress across a city once the first symptomatic tree is detected. How this disease will progress where there are native stands affecting the epidemiology will undoubtedly change things in ways we will all have the unfortunate chance to see in the upcoming years.

However, containment/slow the spread is still something we need to throw ourselves into. The longer we can delay the introduction of the disease (by movement of fungus contaminated walnut twig beetles) the longer your black walnuts can survive. Perhaps with dedicated effort we can push back the ultimate effects of this disaster for a generation or two in many areas, giving us valuable time to develop means of managing it and finding resistant cultivars.

But containment will be up to each state. The Feds have told us clearly that they do not consider it their problem.

Have a nice day. And be thankful if you are not an entomologist or regulatory person in Tennessee — EAB and thousand cankers disease in the same week.

Thousand Cankers Disease: A Red Alert for Walnut

Editor's Notes: *The following article was written before TCD was discovered in Tennessee. It is reprinted in entirety because it presents a good description of the biology, spread, and potential impacts of TCD. The article following this one, i.e., "TCD Update" is even scarier.*

Skip Morglia, NRCS, and
David Boyt, Missouri Walnut Council

The American chestnut tree is gone, we've lost most of our urban elm and many of our forest butternut trees, ash is now in rapid decline, and we stand to lose our black walnut trees. Just two years ago researchers discovered that a sudden decline in black walnut (Juglans nigra) in Colorado was due to a combination of the Walnut Twig Beetle and a previously unknown fungus, which infested the trees by hundreds of thousands, causing cankers and cutting off the flow of nutrients. With a mortality rate near 100 percent, what is the prognosis if the disease moves into black walnut's native range? According to Whitney Cranshaw, professor of bioagriculture science and pest management at the University of Colorado, "based on the patterns seen in the West, such a colonization could very possibly develop into an uncontrollable outbreak. This may ultimately have the potential to destroy black walnut in its native range.

"It is critically important that fresh cut logs from walnut harvested in the western states never be allowed to move outside the area where thousand cankers currently is present. Movement of a single log with live beetles can be the initial source of an outbreak that could ultimately devastate black walnut in uninfested areas. Woodworkers, lumber yards, tree removal services and firewood distributors are among the key groups that need to be provided information on this new disease."

The beetles are tiny — about 1/16 of an inch — smaller than a grain of rice. In late April and early May, they fly to walnut twigs and tunnel under bark where they mate and lay eggs. The larvae tunnel through the tree and chew their way out as adults. Researchers have found as many as 20,000 beetles in a four-foot section of a small walnut log! By themselves, the beetles cause only minor damage to the walnut trees. The fungus they bring with them infects the tunnels, killing the cambium layer of the tree and cutting off the food supply. The tree literally starves to death. The dead cambium forms cankers, which gives the disease its name. The fungus is so deadly to black walnut trees, that it has been named Geosmithia morbida.

The first physical symptom of the disease is a tiny entry hole in the outer bark of a branch or twig. Unfortunately, both the beetle and the entry wound are too small to be detected without a magnifying lens. After the first year of infection, some of the foliage in the upper branches turns yellow at the tips and thins out. By the time these symptoms appear, the disease has progressed to the point where the tree cannot be saved. As the disease progresses, larger branches die. The tree dies within three years of the first visible symptoms. Once infected, there is no effective treatment. Mortality rate is nearly 100 percent.

There are no known means of controlling the spread of the disease. Application of insecticides and fungicides do not appear to be effective. Further frustrating attempts is the fact that an outbreak would not likely be detected for several years after the initial infestation, giving the beetle and fungus plenty of time to settle in and spread to other trees. This means that a quarantine or destruction of infected trees would likely be ineffective.

At this time, there are no known cases of the disease east of Colorado. To infect trees in the main part of the black walnut range, it would have to cross the Great Plains. The beetle and fungus could hitchhike across on a logging truck, hidden under the bark of a log or of a slab of walnut sold to an unsuspecting customer or moved into new areas by campers taking firewood with them. There are steps you can take to help stop the spread of this disease to black walnut's native range. Prevent untreated wood cut in infected areas — Colorado and areas west — from moving east. Do not sell or transport walnut logs, slabs or firewood (any walnut with bark attached) from areas of known or suspected infestation into unaffected areas. If you live in an unaffected area, verify the sources of any walnut logs or slabs before buying them. As people salvage dead or dying walnut, it may be tempting to purchase it. As long as the wood is kiln dried, or consists only of heartwood (with NO bark), it poses no threat. It has been found that the beetle survives in walnut chips, so movement of walnut mulch into unaffected areas must also be avoided.

The U.S. Department of Agriculture does not consider the TCD to be an exotic disease, and therefore left it up to the states to deal with. The best line of defense is information. You can help by letting buyers and sellers know that walnut logs or lumber containing bark should not be shipped east from infested areas. If you have walnut trees, contact your state's department of agriculture or your state forestry agency for assistance with diagnosing any tree problem.

So, why is this important? Walnut trees and their nuts play a vital role in the ecology of many of our forests. Many livelihoods depend on walnut trees — woodworkers, loggers, log buyers, sawmillers, the edible nut industry, furniture makers, carvers, and makers of many specialty walnut products. Harlan Palm, president of the Missouri Walnut Council, estimates that the loss of walnut trees in Missouri alone would amount to roughly a half billion dollars, and would wreak financial havoc on thousands of individuals. Serious tree farmers have been tending walnut plantations for decades to provide retirement income or to leave something of value for their grandchildren. It's hard to describe how emotionally devastating this would be for them.

Spread the word — not the disease.

(Source: This is an edited version of an article that appeared in the March 2010 issue of Sawmill & Woodlot Management magazine.)

Nebraska Forestry Industry Spotlight

WOOD DESIGNS

Wood Designs is a business that began as a hobby for Jeff Andersen. In 1995 Jeff needed a place to store some magazines. Not finding one to his liking, plus having an interest in wood working, he designed and built his own magazine cabinet.

Not knowing much about wood working, the magazine cabinet was the result of a lot of trial and error. However, when friends saw his creation, they recognized his latent talent and encouraged him to pursue his hobby. He still uses this first cabinet and expanded his wood working hobby to a full-time business: Wood Designs.

Jeff at his shop.

Jeff designs and builds custom furniture and cabinets. His product line consists primarily of small items such as end tables, deacon benches, and larger items like cedar chests, entertainment centers, and china cabinets. He also builds custom kitchen cabinets and bathroom cabinets and vanities.

Jeff worked out of his cramped garage when he lived in town. After moving to the country, he built a wood shop that has the space and equipment needed for his woodworking projects. The paneling in the workshop is all reject lumber from surrounding sawmills. A "finishing room" was designed to allow the start of other projects without getting a piece being finished from getting dusty and dirty.

Jeff also owns a Woodmizer Sawmill, with which he saws all the lumber for his custom pieces, plus does some custom-sawing of logs for local customers, either at the wood-shop location or the customer's site.

Jeff works primarily with hardwoods such as oak, ash, hackberry and walnut. He takes the custom-made piece all the way from log form to finished product. No screws or nails are used in piece construction, except for hinges and/or knobs. Traditional 19th century joinery is employed in all of his furniture and cabinets. The finish is also unique, involving many layers of a special blend of tung oil that is hand-rubbed to produce a high gloss finish.

Wood Designs only advertizing is "word of mouth", but is usually booked up for a year in advance.

Wood Designs may be contacted at : HC 13, Box 451, Sparks, NE 69220; phone (402) 497-3470.

You know you're from Nebraska if...

you wear shorts when its 50 degrees in March, but bundle up and complain when it's 60 degrees in August.

Accelerating Air Drying

Once in a while, someone new to air drying will resurrect the old wives' tale that it takes one year per inch of thickness to air-dry lumber. But I have never seen this adage in print, in drying texts, or from any commercial firms.

The truth is that for 4/4 softwoods, low moisture content (MC) can be achieved with two weeks of good air drying; for 4/4 hardwoods, two to four weeks of good air-drying weather will achieve low MCs. A practical problem with this adage, in addition to the cost of carrying a lumber inventory for a year or more, is that as lumber becomes drier, it runs the risk of developing severe quality loss. And this quality loss arises because the dry lumber will be going through wetting (from rain or snow) and drying (from sun and dry air) cycles. These cycles can quickly make small checks and cracks much larger and deeper. Warp is also increased. Staining risks from mildew and mold can increase. In short, air drying more than necessary—that is, over-air-drying, or drying much under 30% MC—can quickly lead to very large losses of quality. Such losses do not require the air-drying company to write a check to anyone; the losses just reduce profits. As a result of not having to pay for over-air-drying, many companies ignore this potential profit/loss approach.

For a person just starting in the lumber business and who is air-drying lumber, I strongly encourage the use of a moisture meter, monitoring the MC every two weeks in order to "prove" how fast the lumber is drying and to avoid over-drying. Several moisture meter manufacturers make devices that can be inserted into a pile being air-dried, thereby allowing a wide range of pieces within a pile to be sampled for MC. Further, I suggest that once lumber is under 30% MC, that it be moved promptly to a protected location to avoid rain wetting and drying cycles, or that it be moved into the kiln.

Increasing Drying Rates

All too often air drying is a "set it and forget it" type of operation. This is not a good approach if profit making is the objective. A few inexpensive, prudent steps taken in the yard can lower drying costs and improve quality.

To understand why the techniques listed below are effective, it is necessary to understand how wood dries. Specifically, wood dries because of the relative humidity (RH) of the air around the wood, the temperature of the air, and the rate of air flow past the wood. Wood dries if the RH is low, the temperature is high, and air flow is high. For some species of wood, such as oak and beech, however, fast drying can increase the risk of checking or cracking. But for most species, faster drying means brighter color, lighter color, and flatter timber.

A first thought on this might be that unless the air-drying operation is physically moved a few hundred miles, it is hard to change the RH, temperature and air flow. The weather outside is uncontrollable. However, with lumber drying, we are considering a microclimate in the air yard and within the pile. This microclimate is, indeed, controllable and by understanding the microclimate we can dry lumber better.

Specific Techniques

Obviously, trees and shrubs close to the air yard should be trimmed or eliminated to improve air flow. The air yard should not be close to any buildings. As most locations are dominated be westerly wind, the west should be especially clear of anything that would block air flow.

Air flow or velocity increases with elevation, so raising the piles off the ground, perhaps 12 inches higher, will result in faster drying of the bottom layers of lumber.

As air moves into a pile when air flow is slow, the air evaporates moisture and cools. This cool air then descends through the pile toward the bottom. If the bottom is not wide open, or if the 4 x 4 space between packs is not open, this moisture-laden air will stay within the pile and slow drying. Therefore, raise the pile AND provide an open bottom space that will allow the moist, cool air to exit. This openness may require that grasses and weeds be trimmed or eliminated.

Narrow piles perhaps 4 or 5 feet wide (such piles can be prone to tipping over, so do not go too high) will avoid the increase in humidity that develops on the inside of a wide pile. Higher interior humidity means slower drying, so narrow piles will dry faster.

After a rainfall, the humidity surround the lumber pile will increase until the moisture that fell is evaporated. Lower humidity (faster drying) can be achieved by paving the air-drying yard so that precipitation is carried or drained away from the site. Dark-colored paving will increase the temperature.

Lower humidity can also be achieved by spreading out the piles over a larger area. Two 5-foot-wide piles separated, edge to edge, by a 3-foot space, with a 40-foot-wide alley separating the double rows would be ideal. Piles are usually spaced tightly end-to-end to avoid end-checking risks.

Thicker stickers will accelerate air drying by providing more air space between the layers. On the other hand, thicker stickers will reduce kiln capacity and will not significantly increase drying rates in the kiln.

Rain will certainly increase the moisture in any lumber on which the rain falls. Using a roof with a 24-inch overhang on top of the pile (or even air drying in a wall-less shed with a roof) will shorten the air-drying time.

Moving the bottom piles to the top and the top piles to the bottom of a stack when drying is about half done will provide more even drying.

When accelerating the air-drying rates, it is worthwhile to remember that when the lumber is loaded into a kiln, the wettest lumber determines the kiln drying time. So if only part of the load is air-dried rapidly, it does little good for speeding up kiln drying. However, many of the items mentioned above will result in more uniform drying of lumber throughout the pile, improving kiln-drying time as well.

Finally, air drying can be enhanced by using electrically powered fans, either portable fans or a building with permanent fans (often called a fan shed or blow box.)

(*Source: Independent Sawmill & Woodlot Management* magazine, Oct./Nov. 2008. Article written by Gene Wengert, Professor Emeritus, University of Wisconsin-Madison, and President of the Wood Doctor's Rx, LLC, in Madison, Wisconsin. For more information or to subscribe to IS&WM, phone 1-888-762-8476 or website: www.sawmillmag.com)

The Trading Post

The Trading Post is provided as a free marketing service for forestry industry. Only forestry-related advertisements will be accepted with the exception of products manufactured in the normal course of your business. 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

Serrco Knuckleboom Log Loader with Sirro stroke delimber/slasher saw. $25,000. **Morbell 16" shear feller/buncher** $7,500 or $30,000 for both. Great for harvesting and delimbing cedar. Contact: Pete Sawle at (402) 322-0263 or (402) 497-3571. Email: sawlemill@threeriver.net.

Complete Sawmill, Kiln, Moulder Operation. Baker 16' fully hydraulic diesel bandmill, Baker A resaw with return, Diehl 5 head moulder with many extra heads, Diehl straight line ripsaw, timesaver 24" two head wide belt sander, shavings bagger, 10 hp three bag dust collector, 10 hp sawdust/shaving blower, 24" planer knife sharpener, Westair dehumidification kiln components. Can see in operation. $55,000 firm. Contact: Pete Sawle at (402) 322-0263 or (402) 497-3571 or email: sawlemill@threeriver.net.

Circular Sawmill. Includes power unit and two 48-inch insert tooth blades. Contact: R&R Sawmill at (308) 569-2345.

Planer. 24" Goodall & Waters planer. 2 knives. Includes 5 HP electric motor. Manufactured about 1890 in Philadelphia. Best offer. Contact: Carl Hinds, 450 Gulf Rd., S. Sioux City, NE 68776. Phone: (402) 494-2127 or cell (712) 281-1472.

Wanted

Belsaw Woodworking Planer. Model 9103. 12¼". **Bandsaw Lumber Mill.** Push type. Contact: Charles Cressman, 231 Walnut St., Butte, NE 68722-3518. Phone: (402) 775-2468.

Logs and Slabwood. Cottonwood, cedar and pine. 4" to 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

Straight Line Ripsaw. Also, **Power Wedge or Dynamite Wedge** for splitting large logs. Contact: Carl Hinds, 450 Gulf Rd., S. Sioux City, NE 68776. Phone (402) 494-2127 or cell (712) 281-1472.

Services and Miscellaneous

Woodshop Services. 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. Certified Stihl chainsaw sales and service. Contact: Tim Schram, Schram Saw and Machine, PO Box 718, 204 E. 3rd St., Ponca, NE 68770, (402) 755-4294.

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

Little Known Nebraska Fact

Nebraska was the first state to complete its segment of the nation's mainline interstate highway system — a 455 mile stretch of I-80.

Food for Thought

When you say, "Why doesn't somebody do something," remember you are somebody!!!