Throughout the West, our National forests face an increased risk of catastrophic wildfire because of an over-abundance of dense, overstocked forest stands. To restore the open, park-like settings that existed in presettlement times, these stands need thinning.

Such restoration is expensive, but if economic uses can be found for this thinned small-diameter material, some costs could be offset. When building or rebuilding fence lines, wood posts offer a natural and traditional use for thinnings from the forest.

Wood posts are exceptionally **strong**, providing a high strength-to-weight ratio. A force of 300 pounds applied 48 inches above the ground line will cause steel posts to fail, but it would take at least 400 pounds to cause a failure in a 2½-inch wood post.

Wood posts **stay** in the ground better because more surface area is in contact with the surrounding soil. In winter, snow and ice can freeze to fence wire. If the soil is even slightly sandy, steel posts become unstable, but properly installed wood posts stay solidly in the ground.

For woods that have a natural durability, such as juniper, preservative treatment is not necessary. However, many woods are not naturally durable. The lifespan of a typical piece of lumber will increase 5 to 10 times if treated properly with a preservative (Table 1). Preservatives prevent decay and repel attacks by carpenter ants, borers, and other insects. Wood posts that have been properly treated with a preservative are **extremely durable**.

To ensure durability, wood poles and posts need to be treated with a preservative to meet specified retention and depth of penetration levels (Table 2). When buying preservative-treated poles and posts, ask the supplier for material that meets the American Wood Preservers' Association (AWPA) C5–00 standard.

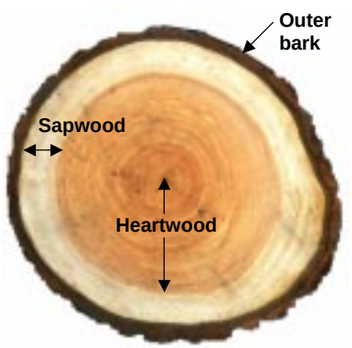
Table 1
Average life of treated and untreated fence posts

Species	Untreated (years)	Preservative treated (years)
Aspen	1.4 to 14	30
Ponderosa pine	3.5 to 14	35+
Lodgepole pine	4 to 12	35+
Douglas-fir	7 to 12	20+
Juniper	29	--

Table 2
Preservative retention and depth of penetration levels

Preservative	Retention (lb/ft³)	Depth of penetration
Lodgepole pine		
Copper naphthenate	0.055	
Penta, CCA-C	0.4	1¼ in.
ACA, ACZA	0.4	or
ACC	0.5	85% of sapwood
Creosote	6.0	
Ponderosa pine		
Copper naphthenate	0.055	
Penta, CCA-C	0.4	2 in.
ACA, ACZA	0.4	or
ACC	0.5	85% of sapwood
Creosote	8.0	
Douglas-fir		
Copper naphthenate	0.055	
Penta, CCA-C	0.4	3/8 in., 100% of sapwood
ACQ-B, ACZA	0.4	or
ACA	0.5	1 in., 85% of sapwood
Creosote	8.0	
Western hemlock, Western larch		
Penta, CCA-C	0.4	3/8 in., 100% of sapwood
ACA, ACZA	0.4	or
ACC	0.5	1 in., 85% of sapwood
Creosote	8.0	

*It is easier to see the difference between sapwood and heartwood in Douglas-fir than it is in ponderosa and lodgepole pine.



Douglas-fir cross section.

Wood posts that are 2 to 9 inches in diameter and 6 to 8 feet in length can be **easily installed**. In loose soils, some regions use a tractor-mounted post driver. In thick, compact hard-pan, heavy sod, or through tree roots, a tractor-mounted auger is used.

Montana highway workers have reported that properly treated wood posts give years of **maintenance-free** service. In fact, they note "We have never had a wood signpost actually wear out . . . ."

A natural benefit of using wood fence posts is how they enhance the **beauty** of the landscape. “Wood blends with the countryside, giving unity and harmony to nature.”

REMEMBER, small-diameter stock, removed as thinnings, is ideal for fence posts when properly treated. It is an efficient way to handle this renewable and natural resource, and it contributes to the local economy.

Check your Yellow Pages for local sources of preservative-treated wood fence posts. Additional information on products and suppliers can be obtained from the following:

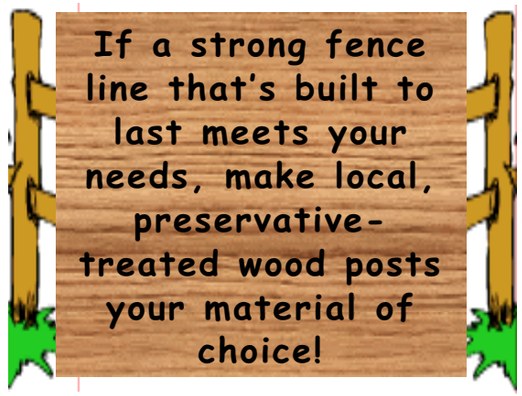
Intermountain Roundwood Association
P.O. Box 805
Seeley Lake, MT 59868
(406) 677–2300

American Wood Preservers’ Association
P.O. Box 5690
Granbury, TX 76049–0690
(817) 326–6300
www.awpa.com

American Wood Preservers Institute
2750 Prosperity Ave., Suite 550
Fairfax, VA 22031–4312
(800) 356–AWPI or (703) 204–0500
www.preservedwood.com

Western Wood Preservers Institute
7017 NE Highway 99, Suite 108
Vancouver, WA 98665
(800) 729–WOOD or (360) 693–9958
www.WWPInstitute.org

FPL. 1999. Wood handbook—Wood as an engineering material. FPL–GTR–113. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. Chapter 14. (www.fpl.fs.fed.us/documnts/fplgtr/fplgtr113/ch14.pdf)



References

AWPA 2000. Standards. American Wood Preservers’ Association, Stevensville, MD.

Borden, T.B.; Troxell, H.E. [n.a.] Use Colorado wood fence posts for a profit. Colorado State Forest Service and Colorado University, Fort Collins, CO.

Cruickshank, D.E. 1970. Small roundwood products and split cedar fencing. State of Oregon Forestry Department.

Gorman, T. M.; Wagner, F.G.; Wichman, D. P. 1997. Directory of Idaho wood products manufacturers, University of Idaho.

Kuhns, M. R.; Kelson, A. R.; Lilieholm, R. J. 1997. Utah and Nevada wood industry directory, Utah State University Extension.

Lebow, Stan. 2001. Personal communication. USDA Forest Service, Forest Products Laboratory, Madison, WI. February.

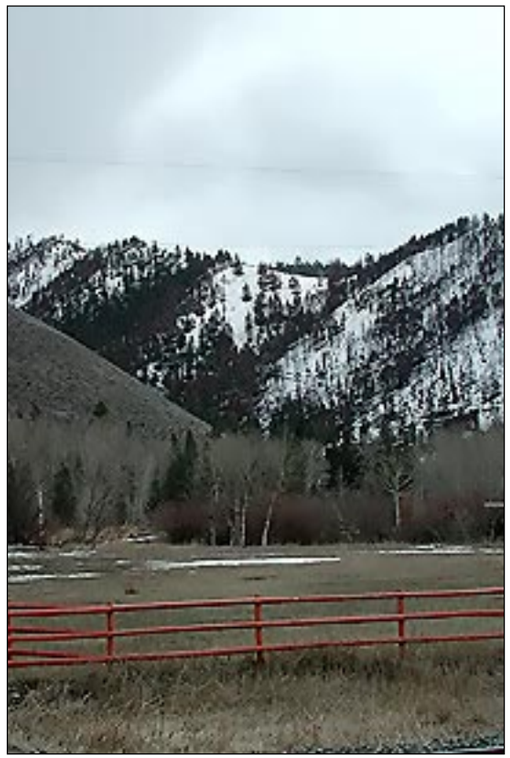
Morrell, J.J.; Miller, D.J.; Schneider, P.F. 1999. Service life of treated and untreated fence posts: 1996 post farm report. Oregon State University, Forest Research Laboratory, Corvallis, OR.

Schmidt, T. L.; Kuhns, M. R. 1990. Native wood fence posts. Cooperative Extension, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln.

USDA Forest Service, Forest Products Laboratory
S&PF Technology Marketing Unit, Madison, WI
March 2001. 608/231–9504 www.fpl.fs.fed.us/tmu

Wood Fence Posts

Buy Local, Buy Quality



Benefits of using wood posts:

- Superior strength
- Ability to hold well in the soil
- Long-lasting durability
- Easy to install
- Maintenance free
- Natural beauty