

## **Opportunity to grow and market poles in loblolly pine plantations.**

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### **1. Why should owners of loblolly pine plantations be interested in poles?**

Poles are a steady market. 130 million wooden utility poles in service in the US. Wooden poles are 90% of market.

Poles are our most valuable product – 50% higher than sawtimber

Most dependable price - \$60/ton month to month prices have a low CV 9%

130 million wood poles in service in the US. Poles have offered us a good steady market even in this recession. Below is what we have seen in South MS the past 10 years (2002-2012). Poles averaged \$60 per ton or 50% higher than pine sawtimber. Pole prices have also been twice as dependable (half the CV of sawtimber).

Pine Product	South MS Forest2Market 10-yr Average Price \$/ton	Coefficient of Variation *
Pine Pulpwood	8.95	17%
Chip-N-Saw	21.69	22%
Pine Sawtimber	39.47	19%
Pine Poles	60.34	9%

\*measure of month to month price variation expressed as a % of the average.

Late 1980s 1.5 – 2<sup>nd</sup> generation loblolly pine plantations. Now these plantations are 25 years old – some are stringline straight, with small branches and good branch angles  
Loblolly pine perfect for poles – who would of thunk it?

Poles need to be string-line straight, pruned up well and have few small limbs usually 2” dia. or less. Loblolly pine in plantations of the past typically had a crooked corkscrew stem and big heavy limbs. These trees did not meet pole standards. But thanks to genetic improvement many loblolly pines in newer plantations are very obviously stringline straight with very small limbs. If you are the proud owner of such a plantation you have been blessed with an opportunity to manage for poles.

### **2. How does a landowner manage for poles?**

1. If you are just starting out with your loblolly pine plantation, consider paying for good genetics. Plant families or varieties of loblolly pine that have demonstrated fast growth, straightness, good branch angle (close to 90 degrees) and small limbs in your area.

2. Poles need to be pruned up well. So delay the first thinning to kill limbs to 24 feet or more in height. Lightly thin – 5<sup>th</sup> row and leave a high basal area 80-90.

3. Use a forester to oversee this first thinning and make sure the loggers are trained to leave your pole quality trees.

4. It takes time to grow a pole.

A small #5 pole – 40 ft long needs a 12 inch diameter and a total height of 60 ft.

A number #4 pole – 50 ft long needs a 14 inches in diameter and total height of 75 ft.

#3 – 60 ft pole – needs a 16 inch diameter

Southern Yellow Pine Poles are typically classified 1-5 based on how much weight (or load) they can carry. To meet load standards, poles must have a certain diameter or circumference at 6 ft (poles are buried 6 ft deep - so this is operational groundline).

Table 3. ANSI classification of wood poles

Poleclass	Horizontal load (lb)	length range (ft)	Minimum tip circumference	
			(inch)	Diameter
1	4,500	35-125	27	8.6
2	3,700	20-125	25	8.0
3	3,000	20-90	23	7.3
4	2,400	20-70	21	6.7
5	1,900	20-50	19	6.1

**STANDARD SPECIFICATIONS FOR WOOD POLES**

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Also see Choctaw Pole and Piling Table below.

5. Poles need strength, the outside 2 inches of radial growth should be mature wood. So trees need to be at least in their mid-twenties in age or older before qualifying as a pole. See Choctaw Pole and Piling Table below.

### **3. How are poles marketed?**

To interest a pole buyer you will need to have 15 tons or more poles to the acre.

That means per acre you will need about 30 12-inch dia poles; 20 14-inch dia poles; or 15 16-inch diameter poles.

Typically poles are marked before the final harvest by a pole buyer and are cut separately after the final harvest.

Time your sale based on a consultant's advice that knows the pole market. As trees age they move up in pole class and value so many landowners may be better off if they can keep your pole quality trees till the final harvest.

So if you are blessed with great trees and then thin correctly and finally successfully market 15 tons of poles to the acre, you should get an additional \$300-\$500 per acre in revenue over and above what you would get for sawtimber.

More information is available from David Dickens, et al 2007 UGA publication (attached separately).

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## A.S.A. Specifications for Unpeeled SOUTHERN YELLOW PINE POLES

### — DIAMETER —

Class		1	2	3	4	5	6	7
Min. Diameter At Top		8.6	8.0	7.3	6.7	6.0	5.4	4.8
add 2 ft for trim		Minimum Diameter at Six Feet from Butt						
20	4	11.4	10.7	9.9	9.2	8.5	8.0	7.2
25	5	12.5	11.8	10.9	10.1	9.4	8.7	8.0
30	5.5	13.6	12.7	11.8	10.9	10.1	9.4	8.7
35	6	14.5	13.6	12.7	11.6	10.9	9.9	9.2
40	6	15.2	14.3	13.4	12.3	11.4	10.5	9.8
45	6.5	15.9	15.0	13.9	13.0	11.9	11.0	10.3
50	7	16.6	15.6	14.5	13.6	12.5	11.6	10.7
55	7.5	17.2	16.1	15.0	14.1	13.0	12.1	
60	8	17.9	16.6	15.6	14.5	13.4	12.5	
65	8.5	18.5	17.2	16.1	15.0	13.9		
70	9	19.0	17.7	16.6	15.4	14.3		
75	9.5	19.5	18.3	17.0	15.9			
80	10	19.9	18.6	17.5	16.3			
85	10.5	20.4	19.2	17.9				
90	11	20.8	19.5	18.3				

Knot size is very important. Any limb or knot over 3 inches or a whorl of knots totaling over 8 inches will be the cutoff point for a pole.

Length of Pole	Dia. of any single knot		Sum of Diameters of All Knots in any One-Foot Section
	Cl. 1-3	Cl. 4-8	ALL CLASSES
45' & Shorter	4"	3"	8"
50' & Longer	5"	5"	10"