

## STUMPAGE SPEAK

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**Louisiana Timber Market Report<sup>1</sup>**  
**First Quarter (Jan.-Mar.) 2018**  
**LSU AgCenter**

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Louisiana Stumpage Prices (\$/ton)	1 <sup>st</sup> Quarter 2018	Change from Prior Quarter
Product Class	Price per ton	% Change
<b>Pine Sawtimber</b>	<b>24</b>	<b>6%</b>
<b>Pine Chip-n-Saw</b>	<b>19</b>	<b>8%</b>
<b>Pine Pulpwood</b>	<b>10</b>	<b>2%</b>
<b>Oak Hardwood</b>	<b>42</b>	<b>-3%</b>
<b>Hardwood Sawtimber –Mixed Grade</b>	<b>33</b>	<b>3%</b>
<b>Hardwood Pulpwood</b>	<b>10</b>	<b>9%</b>

<sup>1</sup> The following document is intended for use by forest stakeholders in Louisiana. **The source of these prices is proprietary in nature and rounded per agreements to disseminate to the public. Therefore, I add percentages so the reader will know if prices are up/down/flat.** The prices I report are also state averages. I recommend using this document and those produced by Louisiana Department of Ag and Forestry to aid Table 1. in decisions about purchases, sales, and

determining harvesting schedules. As always, communicate with a **consultant forester** on prices before executing contracted agreements with wood buyers.

\*\*\*\*Price Conversions: Pine Sawtimber/ MBF= Tons \* 8; Hardwood Sawtimber/ MBF = Tons \* 9.5; CNS and Pine Pulpwood Cords = Tons \* 2.7; Hardwood Pulpwood Cords = Tons \* 2.85\*\*\*\*\*

### Should I wait or should I cut?

Recently I spoke at a field day in Livingston Parish and provided them with some advice on cutting now or waiting to harvest their stand. I'd like to try and provide a synopsis of what I told them for the readers of stumpage speak. So let's dig into that here.

Assume you are already a landowner and already have an established stand that has been thinned twice (once at 12 years and once at 20) and you are at 25 years of age on your stand and are trying to decide if I should cut at 30 years, all the way up to 40 years. What level of price (and volume) increase would you need to postpone your harvest? The test-case plantation is a 30-year-old loblolly pine plantation on an average-quality site (site index of 65 on a 25-year rotation basis) planted with 500 trees per acre, sprayed with an aerial broadcast of herbicides prior to planting, thinned to 200 trees per acre at age 12, and thinned again at age 20 to 100 trees per acre.

\$124.74 in reforestation costs, taxes of 2.50 per year. No other costs or benefits. The only revenues are from the two thinning and the final harvest.

First things you need to determine:

1. What mills are nearby and what is the maximum dbh (diameter breast height) of the bottom log that they can utilize in their manufacturing process?<sup>2</sup> This determines what you are growing your stand for in terms of financial returns. Let's say you only have small dbh mills that take 17' inch dbh wood.
2. When it comes to the other thinning (non-sawtimber), you are cutting for biological considerations only (unless the price for sawtimber is equal to large CNS and then you likely need to cut everything and start over. Why? It's a matter of risk. Why grow a stand for ten more years if both products bring the same price, save yourself ten years of risk of fire, hurricane, or pine beetles, etc.). In that case I would cut everything (liquidate) and start the next stand unless you have good knowledge that a new mill is moving into the area that will want sawtimber (increased competition and thus better prices) or even the larger plywood (bigger dbh wood and typically higher prices than smaller sawtimber). This is a very risky move though, so be sure.
3. You want the tree to put on good growth every year. As the stand ages, the competition among your plantation trees gets more and more stressful for each individual tree. While you may win the volume battle this way (no guarantee), you are also slowing the growth rings down and stressing the trees to a degree. However, you don't want to do this too quickly as some competition is good for self-pruning of limbs and forces the tree up (toward the sun) instead of out.

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<sup>2</sup> This is the circumference of the tree at 4.5 ft above the base of the tree divided by 3.14. this will give you the dbh, take several measurements in the stand and it should give you an idea of the overall stand if you are engaged in even age management.

4. You NEVER try to play ‘guess the prices’ at this stage. Postponing harvest to get an extra dollar on pulpwood or CNS (keeping point 2 in mind) can come back to bite you cause its slowing the time you can get to the final thin (big \$ products) and the subsequent reforestation and future stands that you’ll grow or your children will grow. Take what you can get and move to the next step.

There are rules in place for when to thin and we’ll address those next time, but for now it’s important to discuss what waiting to thin your trees can mean in terms of financial returns. The results are available in table 1 (on page 4).

As you can see, in order to maximize returns under the current prices, you’d cut at 30 years. I’m using the Land Expectation Value (LEV) as it takes into account subsequent timber stands you may want to plant or your children may want to plant.<sup>3</sup> However, all the calculations Net Present Value (NPV), Land Expectation Value (LEV) and Internal Rate of Return (IRR) are all consistent.

Why is 30 years best here? There is an opportunity cost of waiting, that in this scenario, the added growth of the product (extra tons to sell) doesn’t outweigh the costs of holding the timber. Now if you notice the best return among all the options is also the 30 year option. Even with a 50% increase in the price of CNS and Sawtimber the best return is the 30-year stand. At this stage you are trying to optimize your financial returns on the investment, so timing is important (unlike the Pulpwood thin mentioned earlier) due to your financial opportunity cost. We use the discount rate to determine this. Each person’s discount rate is different of course. A topic we’ll explore in a later issue. 5% is a very common baseline, but given your inherent risk factor and non-monetary benefits you receive from timber, it may be too low.

What is the take home message? Once you are at 30 years, it appears (given these prices and silvicultural assumptions) the market is telling you to cut your trees and start the next stand. If you are in an area where sawtimber prices are depressed such as the example I’ve given and your stand is 25 years old, you need to start the preparations for the final harvest. Typically, a well maintained stand puts on 3/8 inch in dbh per year.

Often for a small landowner from the time the first tree is cut until the job is finished can take 1 ½ to even 2 years, it may also take a year to find one willing to cut for you. This is due to the fact that most jobs are pay as cut now. If your logger finds a more profitable deal after they’ve started your stand they have a reason to postpone with you and go harvest another stand.

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<sup>3</sup> Since LEV assumes an infinite series of rotations, it considers the value of future timber growth allowing for a meaningful comparison of management regimes of unequal time per  
Can be used to rank investments when evaluating alternative rotation ages or management regimes.

- a) Could be a larger stand with better economies of scale.
- b) Site could be drier
- c) Could be closer to the mill
- d) More valuable timber into the stands  
Among other things.

Hard to blame them given how tough the logging business has become since the concentration and consolidation of mills and land ownership in the forest industry. A topic I'll explain in detail in a forthcoming issue. Until next time, shoot me an e-mail or a phone call if you need clarification on what I've presented in this issue.

**Table 1. Price and cutting scenarios**

Assumptions: Current prices Pulp \$10, CNS \$16, Saw \$20, Discount rate 5%  
Then we introduce uniform increases for CNS and Sawtimber

	<u>Current Prices</u>				<u>25% increase</u>				
	Net Future Value (\$/ac.)	Net Present Value (\$/ac.)	Land Expectation Value (\$/ac.)	Internal Rate of Return (%)	Net Future Value (\$/ac.)	Net Present Value (\$/ac.)	Land Expectation Value (\$/ac.)	Internal Rate of Return (%)	
30-yr	\$2,260.23	\$522.97	\$643.97	12.08%	30-yr	\$2,729.13	\$631.46	\$777.56	12.60%
32-yr	\$2,463.33	\$516.97	\$625.46	11.78%	32-yr	\$2,974.43	\$624.23	\$755.24	12.25%
34-yr	\$2,653.54	\$505.11	\$601.27	11.48%	34-yr	\$3,202.74	\$609.66	\$725.71	11.92%
36-yr	\$2,849.23	\$491.94	\$576.88	11.20%	36-yr	\$3,436.93	\$593.41	\$695.87	11.61%
38-yr	\$3,054.40	\$478.33	\$553.24	10.95%	38-yr	\$3,681.90	\$576.60	\$666.90	11.33%
40-yr	\$3,267.87	\$464.19	\$530.12	10.73%	40-yr	\$3,936.07	\$559.10	\$638.52	11.08%

  

	<u>10% price increase</u>				<u>50% increase</u>				
	Net Future Value (\$/ac.)	Net Present Value (\$/ac.)	Land Expectation Value (\$/ac.)	Internal Rate of Return (%)	Net Future Value (\$/ac.)	Net Present Value (\$/ac.)	Land Expectation Value (\$/ac.)	Internal Rate of Return (%)	
30-yr	\$2,514.75	\$581.86	\$716.48	12.37%	30-yr	\$3,198.03	\$739.95	\$911.16	13.05%
32-yr	\$2,741.93	\$575.44	\$696.20	12.05%	32-yr	\$3,485.53	\$731.49	\$885.01	12.67%
34-yr	\$2,953.86	\$562.28	\$669.31	11.73%	34-yr	\$3,751.94	\$714.20	\$850.15	12.30%
36-yr	\$3,171.43	\$547.57	\$642.11	11.44%	36-yr	\$4,024.63	\$694.88	\$814.86	11.96%
38-yr	\$3,399.08	\$532.31	\$615.68	11.17%	38-yr	\$4,309.40	\$674.87	\$780.56	11.66%
40-yr	\$3,635.47	\$516.40	\$589.76	10.93%	40-yr	\$4,604.27	\$654.02	\$746.92	11.38%