

Sartain-Williams Tract 8557930°50'15"N
93°46'14"W

This tract is roughly ½ hardwood bottom and ½ loblolly pine plantation (planted in 2005). Total area is 51.8 acres with 26 acres of pine plantation and 26 acres of natural hardwood. The timber stand consists of 2,068 tons of hardwood pulpwood and sawlogs with an estimated value of \$13,361.

85579— Merchantable Timber (25.7 acres)

<i>PRODUCT</i>	<i>TONS</i>	<i>DOLLARS</i>	<i>\$/TON</i>
hardwood pulpwood	1,489	\$5,957	\$4.00
hardwood topwood	85	\$341	\$4.00
hardwood sawlogs	494	\$7,063	\$14.30
TOTAL	2,068	\$13,361	\$6.46

Tree Abundance

Eighty-two percent of the trees growing in the merchantable stands are pine species and 18% are hardwood (82:18). PINE PULPWOOD and CHIP-N-SAW account for 69% of the trees (36% and 33%). **The average total number of trees is 230 per acre**, indicating high stocking. The two pine sawlog categories combined account for account for 12% of the total trees.

Stand Density

Stand density is an indication of crowding and is measured by basal area (defined as the sum of the cross-sectional area of all trees on one acre). The calculation of basal area is a function of the **number and size** of trees in the forest..

Pine trees comprise 83% of the average stand density, hardwood 17%. **The average total basal area for all trees in the merchantable stands is 98 square feet per acre**, indicating moderately high stand density. Pine CHIP-N-SAW is the most prominent category impacting stand density accounting for 36% of the total.

The average tree measures 8.5" dbh. Pine trees average 8.6" and hardwood trees average 7.6".

Timber Volume

Tree height and form are added to the function to calculate timber volume. Pine timber accounts for 86% of the total timber volume, hardwood 14%. CHIP-N-SAW continues as the most prominent product category accounting for 36% of the total timber volume.

PINE & HARDWOOD TOPWOOD area added to the analysis for the timber volume and value distributions. Topwood is derived from the sawlog trees (and chip-n-saw) and is the portion of

the tree that is utilized for pulpwood after sawtimber is merchandized. Pine sawlog trees typically generate more topwood than hardwood sawlog trees.

The average total timber volume is 105 tons per acre, at least 3½ truck loads per acre.

Timber Value

Timber value is assigned to the timber volume in a stair-stepped manner. That is, value increases at an uneven rate with jumps that are triggered by product thresholds rather than by gradual gradations. Some smoothing of the value to volume and tree size ratio is realized in “log sorts” offered (or required) by certain mills but “blended” pricing is more applicable for inventory and appraisal studies.

Pine trees account for 94% of the timber value, hardwoods only 6%. CHIP-N-SAW accounts for 39% of the total value (42% of the pine value). The two pine sawlog categories combined comprise 43% of the total timber value with only 12% of the trees.

The average total timber value for all trees in the merchantable stands is \$1,674 per acre.

Timber Inventory Summary for the 85579

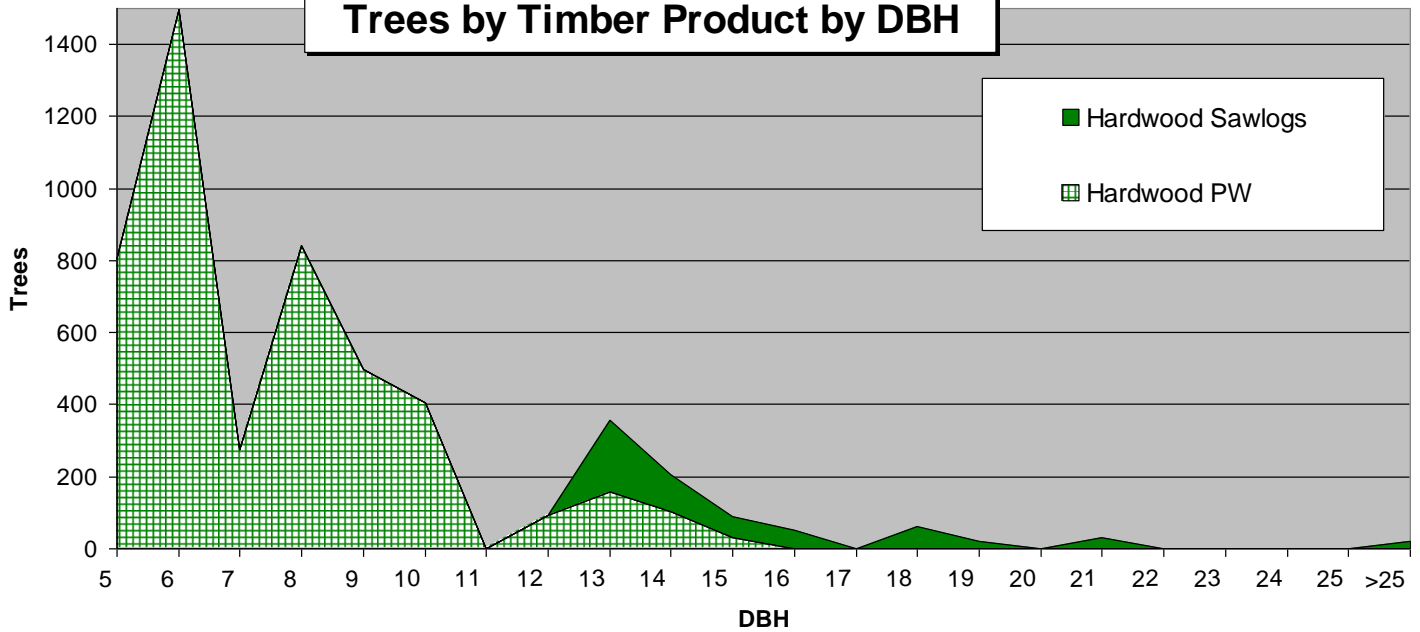
Sartain-Williams 85579		26 acres		<i>per acre</i>			
				trees	basal area	tons	stumpage
Loblolly	pine pulpwood						
	pine topwood						
	chip-n-saw						
	pine small sawlogs (11-13")						
	pine sawlogs (>13")						
	total pine	0.0	0.0	0.0	\$0.00		
Hardwood	hardwood pulpwood	183.2	61.4	58.0	\$231.90	7.5	
	hardwood sawlogs	21.2	28.6	19.2	\$274.90	15.4	
	hardwood topwood			3.3	\$13.30		
	total hardwood	204.4	90.0	80.5	\$520.10	8.3	
Total		204.4	90.0	80.5	\$520.10	8.3	

Sartain-Williams 85579		26 acres		<i>tract total</i>			
				trees	basal area	tons	stumpage
Loblolly	pine pulpwood						
	pine topwood						
	chip-n-saw						
	pine small sawlogs (11-13")						
	pine sawlogs (>13")						
	total pine	0	0	0	\$0		
Hardwood	hardwood pulpwood	4706	1578	1489	\$5,957		
	hardwood sawlogs	544	734	494	\$7,063		
	hardwood topwood			85	\$341		
	total hardwood	5250	2312	2068	\$13,361		
Total		5250	2312	2068	\$13,361		

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Hardwood Stock & Stand Table

DBH	Total Hdwd		Hdwd PW		Hdwd Sawlogs		Hdwd Tops
	trees	tons	trees	tons	trees	tons	tons
5	807	93	807	93			
6	1496	285	1496	285			
7	275	71	275	71			
8	841	282	841	282			
9	498	215	498	215			
10	404	235	404	235			
11	0	0					
12	93	60	93	60			
13	356	306	159	131	197	132	43
14	206	151	103	89	103	62	
15	90	101	30	28	60	51	22
16	53	61			53	61	
17	0	0					
18	62	60			62	60	
19	19	19			19	19	
20	0	0					
21	31	59			31	59	
22	0	0					
23	0	0					
24	0	0					
25	0	0					
>25	19	70			19	50	20
total	5251	2068	4706	1489	544	494	85

**Sartain-Williams - 85579 (26 acres)-
Trees by Timber Product by DBH**



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Tons by Timber Product by DBH**

