

**Sartain-Williams Timberlands
Tract 5562**

**30°43'14.4"N
93°54'42.9"W**

This 216 acre tract is located north of Kirbyville off US 96 along CR 443 in Jasper County. Approximatley ⅓ of the acreage is young plantation. The remaing 147 acres are include natural pine-hardwood stands and pine plantations. Some of the merchantable acreage is classified as SMZ (Streamside Management Zone).

The natural stand contains a total of 10,955 tons of mixed natural and planted pine and hardwood with an estimated value of \$107,193. The pine component accounts for 61% of the total volume and 77% of the value.

Data were collected from 36 sample points distributed across the subject area.

The GPS coordinates reference the point of access on CR 433 near the southwestern corner..

5562— Merchantable Timber (147 acres)

<i>PRODUCT</i>	<i>TONS</i>	<i>DOLLARS</i>	<i>\$/TON</i>
pine pulpwood	4,300	\$30,100	\$7.00
pine topwood	618	\$4,318	\$7.00
pine chip-n-saw	711	\$12,088	\$17.00
pine small sawlogs (11.5" to 13.5" dbh)	555	\$15,539	\$28.00
pine sawlogs (>13.5" dbh)	511	\$20,459	\$40.00
Total Pine	6,695	\$82,504	\$12.32
hardwood pulpwood	3,219	\$12,877	\$4.00
hardwood topwood	373	\$1,491	\$4.00
hardwood sawlogs	668	\$10,321	\$15.45
Total Hardwood	4,260	\$24,689	\$5.80
TOTAL	10,955	\$107,193	\$9.78

Tree Abundance

The stand is 54% pine and 46% hardwood. PINE PULPWOOD comprises 45% of the trees, HARDWOOD PULPWOOD 43%. **The average total number of trees is 258 per acre**, indicating very high stocking. The two pine sawlog categories combined account for account for 4% of all 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 56% of the average stand density, hardwood 44%. **The average total basal area for all trees in the merchantable stands is 85 square feet per acre**, indicating moderately high stand density. PINE PULPWOOD accounts for 36% of the stand density; HARDWOOD PULPWOOD 34%.

The average tree measures 7.4" dbh. Pine trees average 7.6" and hardwood trees average 7.2".

Timber Volume

Tree height and form are added to the function to calculate timber volume. Pine timber accounts for 61% of the total timber volume, hardwood 39%. PINE PULPWOOD continues as the most prominent product category accounting for 39% of the total timber volume. HARDWOOD PULPWOOD accounts for 29%. The two pine sawlog categories combined (including topwood) account for 14%.

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 74 tons per acre, the equivalent of $2\frac{2}{3}$ 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 77% of the timber value, hardwoods 23%. The PINE PULPWOOD accounts for 45% of the total timber value. The two pine sawlog categories combined (including topwood) produce 36% of the total timber value.

The average total timber value for all trees in the merchantable stands is \$729 per acre.

Timber Inventory Summary for 5562

Sartain-Williams Timberlands 5562 147 acres		<i>per acre</i>				avg dbh
		trees	basal area	tons	stumpage	
Loblolly	pine pulpwood	116.2	30.8	29.3	\$204.80	6.9
	pine topwood			4.2	\$29.40	
	chip-n-saw	12.4	6.4	4.8	\$82.20	9.7
	pine small sawlogs (12-13")	7.6	6.1	3.8	\$105.70	12.2
	pine sawlogs (>13")	3.2	4.2	3.5	\$139.20	15.4
	total pine	139.4	47.5	45.6	\$561.30	7.6
Hardwood	hardwood pulpwood	110.4	28.9	21.9	\$87.60	6.7
	hardwood sawlogs	7.8	8.6	4.5	\$70.20	14.0
	hardwood topwood			2.5	\$10.10	
	total hardwood	118.2	37.5	28.9	\$167.90	7.2
Total		257.6	85.0	74.5	\$729.20	7.4

Sartain-Williams Timberlands 5562 147 acres		<i>tract total</i>			
		trees	basal area	tons	stumpage
Loblolly	pine pulpwood	17077	4533	4300	\$30,100
	pine topwood			618	\$4,318
	chip-n-saw	1828	939	711	\$12,088
	pine small sawlogs (12-13")	1113	898	555	\$15,539
	pine sawlogs (>13")	471	613	511	\$20,459
	total pine	20489	6983	6695	\$82,504
Hardwood	hardwood pulpwood	16232	4247	3219	\$12,877
	hardwood sawlogs	1154	1266	668	\$10,321
	hardwood topwood			373	\$1,491
	total hardwood	17386	5513	4260	\$24,689
Total		37875	12496	10955	\$107,193

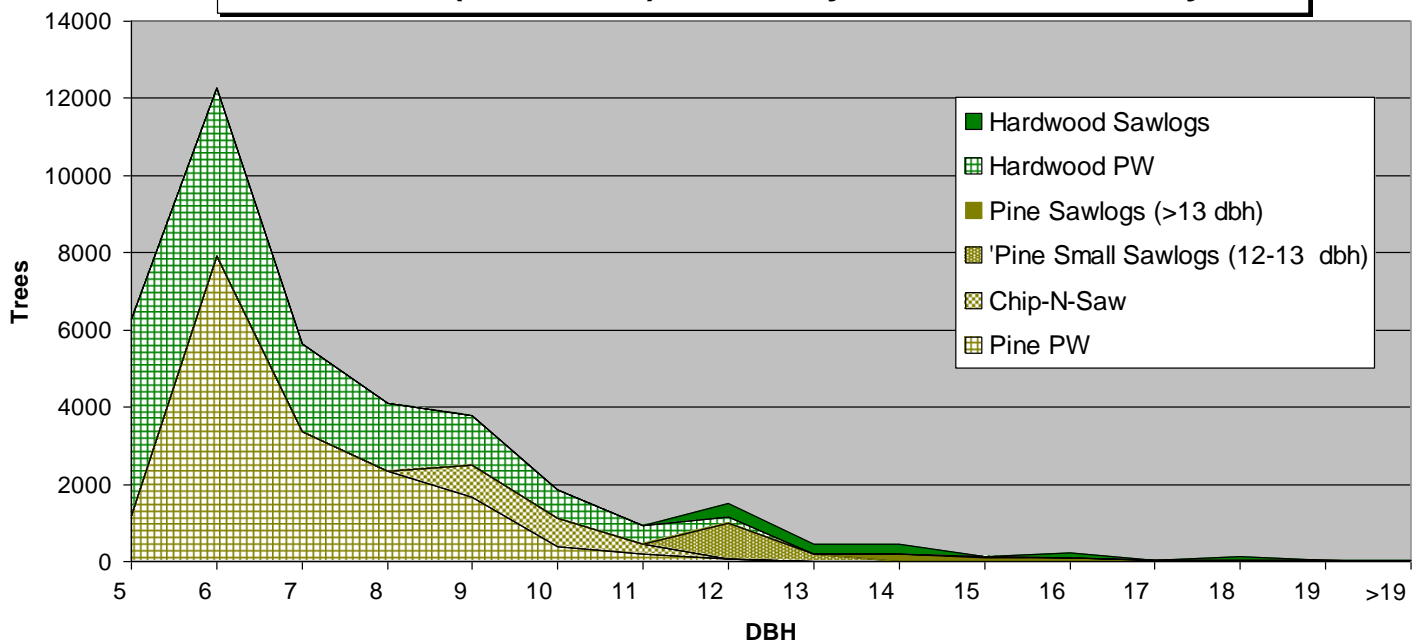
Sartain-Williams Timberlands

Tract 5562

Pine Stock & Stand Table

DBH	Total Pine		Pine PW			Chip-N-Saw			Pine Small Logs (12-13" dbh)			Pine Sawlogs (>13" dbh)			Pine Tops
	trees	tons	trees	tons	avg. total height	trees	tons	avg. total height	trees	tons	avg. log height	trees	tons	avg. log height	tons
5	1198	124	1198	124	35										
6	7903	1379	7903	1379	48										
7	3361	835	3361	835	53										
8	2340	818	2340	818	56										
9	2496	1093	1664	755	58	832	255	54							83
10	1123	587	374	213	64	749	299	59							75
11	433	327	186	137	65	247	157	64							33
12	988	729	52	39	55				936	423	24				267
13	177	209							177	132	32				77
14	191	206										191	161	34	45
15	100	111										100	100	37	11
16	88	85										88	85	28	0
17	26	49										26	36	41	13
18	46	89										46	89	48	0
19	21	52										21	40	46	12
>19	0	0													
total	20489	6695	17077	4300		1828	711		1113	555		471	511		618

SWT - 5562 (147 acres)- Trees by Timber Product by DBH



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Tract 5562

Hardwood Stock & Stand Table

DBH	Total Hdwd		Hdwd PW		Hdwd Sawlogs		Hdwd Tops
	trees	tons	trees	tons	trees	tons	tons
5	5091	446	5091	446			
6	4367	620	4367	620			
7	2292	423	2292	423			
8	1755	520	1755	520			
9	1294	474	1294	474			
10	749	334	749	334			
11	495	263	495	263			
12	520	339	156	106	364	156	77
13	266	218			266	133	85
14	267	161			267	144	17
15	33	34	33	34			
16	146	205			146	96	109
17	0	0					
18	69	93			69	61	32
19	0	0					
>19	42	131			42	78	53
total	17386	4260	16232	3219	1154	668	373

