

**Sartain-Williams Timberlands
Tract 5580**

**30°56'38.9"N
93°39'23.6"W**

This 239 acre tract is located south of Burkeville in northern Newton County. Approximately ½ of the acreage is young plantation. The remaining 120 acres can generally be classified as SMZ although some of the acreage is located beyond the typical width limits for SMZ buffers.

The merchantable timber stands contain 10,522 tons of natural pine and hardwood and planted pine with an estimated value of \$150,392. The pine component accounts for 48% of the total volume and 77% of the value. Most of the trees in the merchantable stands are available for harvest. Limitations associated with *Best Management Practices* for timber harvest are applicable and aggressive harvests (cutting more than 50-66% of the stand at any given time) is strongly discouraged. Slope and site wetness may also limit the availability of trees in some locations.

The GPS coordinates reference the approximate center of the tract.

The timber inventory data were collected from 30 sample points distributed across the entire merchantable acreage.

5580— Merchantable Timber (120 acres)

<i>PRODUCT</i>	<i>TONS</i>	<i>DOLLARS</i>	<i>\$/TON</i>
pine pulpwood	916	\$6,413	\$7.00
pine topwood	694	\$4,859	\$7.00
pine chip-n-saw	1,204	\$20,460	\$17.00
pine small sawlogs (11.5" to 13.5" dbh)	452	\$12,646	\$28.00
pine sawlogs (>13.5" dbh)	1,798	\$71,908	\$40.00
Total Pine	5,064	\$116,286	\$22.96
hardwood pulpwood	3,689	\$14,755	\$4.00
hardwood topwood	768	\$3,071	\$4.00
hardwood sawlogs	1,001	\$16,280	\$16.26
Total Hardwood	5,458	\$34,106	\$6.25
TOTAL	10,522	\$150,392	\$14.29

Tree Abundance

The stand is 38% pine and 62% hardwood. HARDWOOD PULPWOOD comprises 55% of the trees. **The average total number of trees is 144 per acre**, indicating high stocking. The two pine sawlog categories combined account for 11% 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 42% of the average stand density, hardwood 58%. **The average total basal area for all trees in the merchantable stands is 862 square feet per acre**, indicating moderately high stand density. HARDWOOD PULPWOOD accounts for 42% of the stand density; PINE SAWLOGS accounts for 18%.

The average tree measures 9.8" dbh. Pine trees average 10.3" and hardwood trees average 9.5".

Timber Volume

Tree height and form are added to the function to calculate timber volume. Pine timber accounts for 48% of the total timber volume, pine hardwood 52%. The two pine sawlog categories combined (including topwood) account for 28% 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 87.6 tons per acre, approximately 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%. Trees in the PINE SAWLOG category (including topwood) comprise 50% of the total timber value with only 7% of the trees.

The average total timber value for all trees in the merchantable stands is \$1253 per acre.

Timber Inventory Summary for 5580

Sartain-Williams Timberlands 5580 120 acres		<i>per acre</i>				avg dbh
		trees	basal area	tons	stumpage	
Loblolly	pine pulpwood	23.6	7.3	7.6	\$53.40	7.3
	pine topwood			5.8	\$40.50	
	chip-n-saw	15.8	8.3	10.0	\$170.50	9.8
	pine small sawlogs (12-13")	5.5	4.7	3.8	\$105.40	12.5
	pine sawlogs (>13")	9.9	15.7	15.0	\$599.20	16.8
	total pine	54.8	36.0	42.2	\$969.00	10.3
Hardwood	hardwood pulpwood	79.2	36.7	30.7	\$123.00	8.7
	hardwood sawlogs	9.8	13.7	8.3	\$135.70	15.8
	hardwood topwood			6.4	\$25.60	
	total hardwood	89.0	50.4	45.4	\$284.30	9.5
Total		143.8	86.4	87.6	\$1,253.30	9.8

Sartain-Williams Timberlands 5580 120 acres		<i>tract total</i>			
		trees	basal area	tons	stumpage
Loblolly	pine pulpwood	2829	880	916	\$6,413
	pine topwood			694	\$4,859
	chip-n-saw	1892	1000	1204	\$20,460
	pine small sawlogs (12-13")	660	560	452	\$12,646
	pine sawlogs (>13")	1191	1880	1798	\$71,908
	total pine	6572	4320	5064	\$116,286
Hardwood	hardwood pulpwood	9508	4400	3689	\$14,755
	hardwood sawlogs	1174	1640	1001	\$16,280
	hardwood topwood			768	\$3,071
	total hardwood	10682	6040	5458	\$34,106
Total		17254	10360	10522	\$150,392

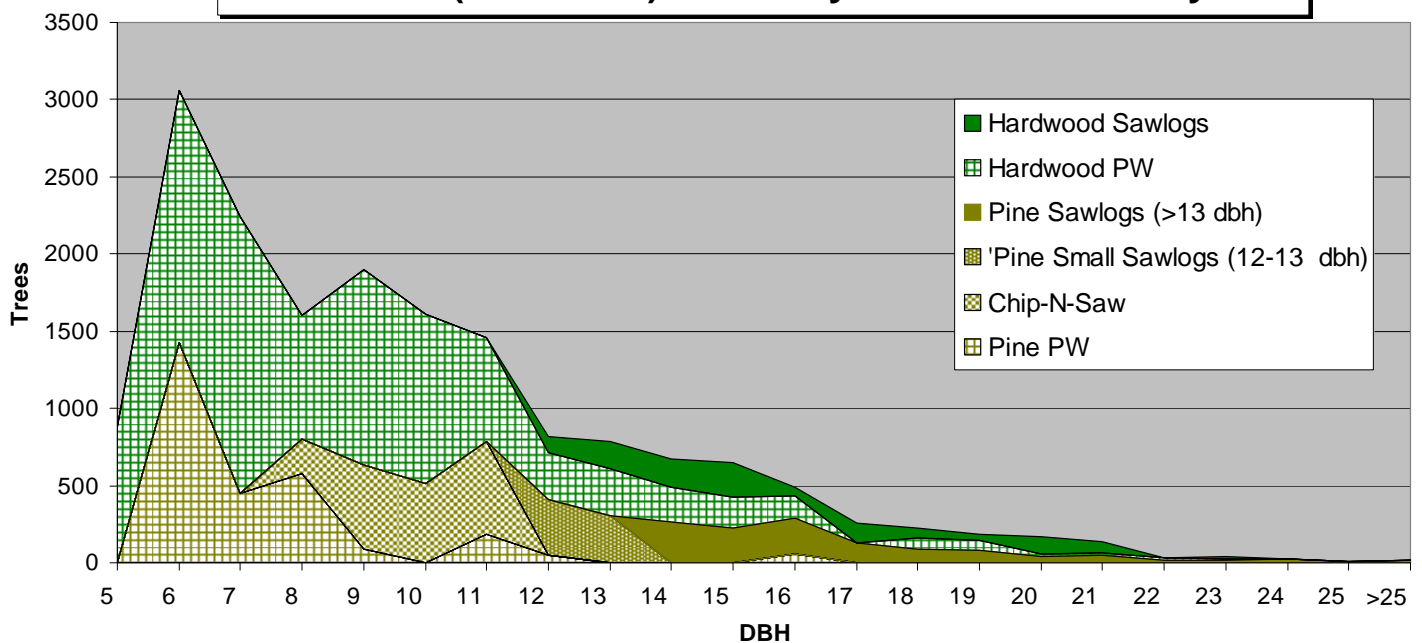
Sartain-Williams Timberlands

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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	0	0													
6	1426	246	1426	246	47										
7	449	120	449	120	58										
8	802	313	573	222	64	229	91	68							0
9	634	323	91	49	75	543	274	66							0
10	513	345				513	345	74							0
11	788	632	182	139	65	606	493	73							0
12	408	335	51	32	35				357	217	35				86
13	304	315							304	234	39				81
14	262	320										262	236	39	84
15	228	332										228	259	44	73
16	286	482	57	108	78							229	273	40	101
17	127	248										127	199	49	49
18	91	195										91	140	40	55
19	81	212										81	178	57	34
20	37	106										37	87	54	19
21	50	161										50	128	53	33
22	15	53										15	40	49	13
23	14	55										14	45	56	10
24	25	113										25	91	57	22
25	12	57										12	46	57	11
>25	20	99										20	76	44	23
total	6572	5064	2829	916		1892	1204		660	452		1191	1798		694

SWT - 5580 (120 acres)- Trees by Timber Product by DBH



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Hardwood Stock & Stand Table

DBH	Total Hdwd		Hdwd PW		Hdwd Sawlogs		Hdwd Tops
	trees	tons	trees	tons	trees	tons	
5	880	87	880	87			
6	1630	278	1630	278			
7	1796	385	1796	385			
8	802	244	802	244			
9	1268	488	1268	488			
10	1100	485	1100	485			
11	667	394	667	394			
12	408	305	306	232	102	35	38
13	478	322	304	178	174	93	51
14	412	373	225	208	187	106	59
15	424	473	196	167	228	172	134
16	200	306	143	194	57	49	63
17	127	242			127	126	116
18	136	221	68	107	68	80	34
19	102	277	61	98	41	51	128
20	128	280	18	31	110	164	85
21	84	189	17	51	67	88	50
22	15	32	15	32			
23	28	74	14	29	14	37	8
24	0	0					0
25	0	0					
>25	0	0					
total	10682	5458	9508	3689	1174	1001	768

**SWT 5580 (120 acres)-
Tons by Timber Product by DBH**

