

Morgan Jones  
 Howard County, Arkansas  
 4/2/2008

Inventory Report  
**Cossatot 30**  
 30 Total Acres  
 30 Cruised Acres

RFC  
 P. O. Box 1129  
 Magnolia, AR 71754  
 (870) 234-0200

**Pine Pulpwood**

Diameter at 4.5'	Merchantable Heights in 16 Foot Logs					<u>Trees</u>		<u>Cords</u>		<u>Tons</u>		
	Form Class	1	1.5	2	2.5	Total Trees	Per Acre	Total Cords	Per Acre	Tons Total	Tons Per Acre	Loads (28 Tons)
6	81	0	15	15	0	30	1.0	1.4	0.0	4	0.1	0.1
8	81	0	30	60	30	120	4.0	10.5	0.4	28	0.9	1.0
10	80	0	30	0	0	30	1.0	3.5	0.1	9	0.3	0.3
	<b>Total</b>	0	75	75	30	180	6.0	15.4	0.5	41	1.4	1.4

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**Red Oak Sawtimber**

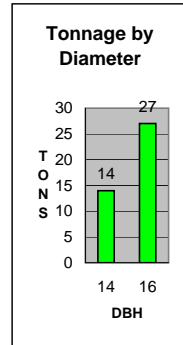
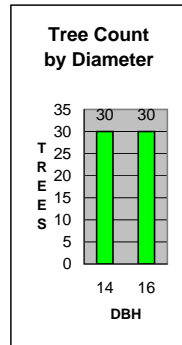
Diameter at 4.5'	Merchantable Heights in 16 Foot Logs				Trees				Doyle Log Rule (derived from CF)				Tons			Cubic Feet		
	Form Class	1	1.5	2	Total Trees	Per Acre	Total 16 ft. Logs	Average Logs/Tree	Total BF	Per Acre	Per Tree	Average BF/Log	Tons Total	Tons Per Tree	Loads (28 Tons)	CF Total	CF Per Acre	CF Per Tree
14	76	30	0	0	30	1.0	30	1.0	1,388	46	46	46	14	0.5	0.5	375	13	13
16	76	0	15	15	30	1.0	53	1.8	3,108	104	104	59	27	0.9	1.0	740	25	25
<b>Total</b>		30	15	15	60	2.0	82.5	1.4	4,496	149.9	74.9	54.5	41	0.7	1.5	1,115	37.2	18.6

**Red Oak**  
 Sawtimber Summary

Average DBH (inches)

Average Height (16 Ft Logs)

Average Tons/Acre



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White Oak Sawtimber

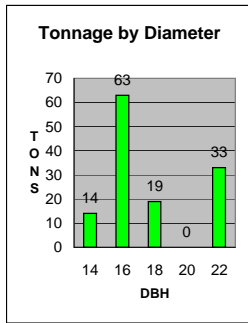
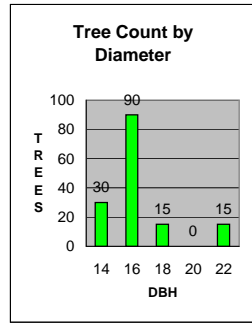
Diameter at 4.5'	Merchantable Heights in 16 Foot Logs					Trees				Doyle Log Rule (derived from CF)				Tons			Cubic Feet		
	Form Class	1	1.5	2	2.5	Total Trees	Per Acre	Total 16 ft. Logs	Average Logs/Tree	Total BF	Per Acre	Per Tree	Average BF/Log	Tons Total	Tons Per Acre	Loads (28 Tons)	CF Total	CF Per Acre	CF Per Tree
	14	76	30	0	0	0	30	1.0	30	1.0	1,373	46	46	46	14	0.5	0.5	371	12
16	76	45	45	0	0	90	3.0	113	1.3	7,295	243	81	65	63	2.1	2.3	1,737	58	19
18	76	0	0	15	0	15	0.5	30	2.0	2,406	80	160	80	19	0.6	0.7	512	17	34
20	76	0	0	0	0	0	0.0	0	0.0	0	0	0	0	0	0.0	0.0	0	0	0
22	76	0	0	0	15	15	0.5	38	2.5	4,928	164	329	131	33	1.1	1.2	896	30	60
<b>Total</b>		75	45	15	15	150	5.0	210.0	1.4	16,002	533.4	106.7	76.2	129	4.3	4.6	3,516	117.2	23.4

**White Oak**  
 Sawtimber Summary

Average DBH  
 (inches)  
 16.40

Average Height  
 (16 Ft Logs)  
 1.40

Average Tons/Tree  
 0.86



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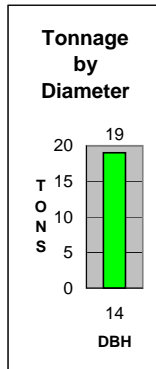
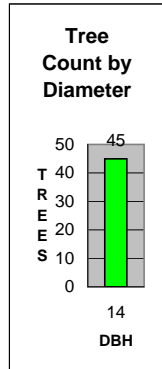
Miscellaneous Hardwood Sawtimber

Merchantable Heights in 16 Foot Logs

Diameter at 4.5'	Form Class	1
14	76	45
Total		45

Trees				Doyle Log Rule (derived from CF)				Tons			Cubic Feet		
Total Trees	Per Acre	Total 16 ft. Logs	Average Logs/Tree	Total BF	Per Acre	Per Tree	Average BF/Log	Tons Total	Tons Per Tree	Loads (28 Tons)	CF Total	CF Per Acre	CF Per Tree
45	1.5	45.0	1.0	2,091	70	46	46	19	0.4	0.7	565	19	13
45	1.5	45.0	1.0	2,091	69.7	46.5	46.5	19	0.4	0.7	565	18.8	12.6

Miscellaneous Hardwood Sawtimber Summary	
Average DBH (inches)	14.0
Average Height (16 Ft Logs)	1.0
Average Tons/Acre	0.6



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**Hardwood Pulpwood**

Merchantable Heights in 16 Foot Logs

Diameter at 4.5'	Form Class	Merchantable Heights in 16 Foot Logs				
		1	1.5	2	2.5	3
6 & 8	76	0	60	150	60	0
10	76	0	0	30	30	0
12	76	0	0	15	90	45
14	79	30	0	45	0	0
16	79	30	0	0	0	0
18	79	0	0	0	0	0
20	79	15	0	0	0	0
<b>Total</b>		75	60	240	180	45

Trees		Cords		Tons		
Total Trees	Per Acre	Total Cords	Per Acre	Tons Total	Tons Per Acre	Loads (28 Tons)
270	9.0	22	0.7	56	1.9	2.0
60	2.0	8	0.3	21	0.7	0.7
150	5.0	32	1.1	81	2.7	2.9
75	2.5	18	0.6	44	1.5	1.6
30	1.0	7	0.2	17	0.6	0.6
0	0.0	0	0.0	0	0.0	0.0
15	0.5	5	0.2	14	0.5	0.5
<b>600</b>	<b>20.0</b>	<b>93</b>	<b>3.1</b>	<b>233</b>	<b>7.8</b>	<b>8.3</b>

## Inventory Utilizations

[www.reynoldsforestry.com](http://www.reynoldsforestry.com)

- \* Trees were inventoried by diameter at breast height (dbh; two inch classes at 4.5 feet).
- \* Pine Sawtimber dbh reported as  $\geq 10$  inches in two inch classes as follows: 10" = 9.1" - 11.0" dbh; 12" = 11.1" - 13.0" dbh, etc.
- \* Hardwood Sawtimber dbh reported as  $\geq 14$  inches in two inch classes as follows: 14" = 13.1" - 15.0" dbh; 16" = 15.1" - 17.0" dbh, etc.
- \* Tree heights were called in 16 feet logs to 6" top diameters outside bark (dob) for pine sawtimber, 9" top dob for hardwood sawtimber, 3" top dob for all pulpwood, or to merchantability (whichever occurred first).
- \* Saw-log merchantable heights are defined as: 1) to the heights specified above, or 2) the height where a whorl of 3 or more branches (whose diameters are equal to or greater than the diameter of the supporting stem) occurs within a 1-foot stem section if there is not a minimum of 8 feet of clear stem above the whorl. If a one foot section has three or more 3 inch diameter branches, regardless of the diameter, the height is called just below the one foot section.
- \* Cubic Feet were derived from USFS's "Stem Profile Equations for Southern Tree Species" by Clark, Souter and Schlaegel.
- \* Board Feet in Doyle was derived from the cubic feet using conversion tables in the Forest Service's "Service Forester's Handbook".
- \* Pine Sawtimber tons were derived from Cubic feet using 3.37 tons per Cunit (10" - 18" dbh) and 3.30 tons per Cunit (20" - 30" dbh).
- \* Hardwood Sawtimber tons were derived from Cubic feet using 3.65 tons per Cunit for Oak and 3.40 tons per Cunit for Misc. Hardwood.
- \* Pulpwood volumes were derived from cubic feet. Cords were derived using 78 cubic feet per cord for pine and 74 cubic feet per cord for hardwood. Cubic feet were converted to tons using 3.37 tons per cunit for pine and 3.4 tons per cunit for hardwood.
- \* Expected tonnage fluctuations occur between winter and summer logging due to sap flow and moisture composition.
- \* Pine sawtimber tree count and dbh are not guaranteed.