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CUBIC FOOT VOLUME TABLES FOR SLASH PINE PLANTATIONS OF THE MIDDLE COASTAL PLAIN OF GEORGIA AND THE CAROLINA SANDHILLS

Proper management of any timber **species** or type requires valid estimates of volume from time to time. Tables 1 and 2 were constructed to meet this need for the expanding area of slash pine plantations in the middle coastal plain of Georgia and the Carolina Sandhills.

Measurements, both inside and outside bark and to minimum top diameters of **2-, 3-, and 4-inches** outside bark, were obtained from 553 trees, well distributed throughout the above areas, and analyzed by regression methods. The product of diameter at breast height squared and total height was found to account for about 98 percent of the total variation in volume per tree. This was accepted as giving a simple, yet valid, **estimate** of cubic foot volume. Regression equations by which these tables were calculated will be supplied upon request.

Frequently values in cords rather than cubic feet are desired. To convert these cubic tables to cords, a ratio of 92 cubic feet per standard cord of 128 cubic feet **may** be used. This is based on a check of pulpwood as it arrived at the mill by railway car.

Table 1. --Cubic foot volumes (outside bark) for slash pine plantations

TOP DIAMETER 4.0 INCHES OUTSIDE BARK

D.b.h. (Inches)	Total tree height in feet--											
	20	25	30	35	40	45	50	55	60	65	70	75
	Cubic feet											
5	.31	.65	.98	1.32	1.55	2.00	2.34	2.58	3.01			
5	.90	1.39	1.85	2.35	2.85	3.34	3.83	4.31	4.50	5.29		
7		2.27	2.93	3.50	4.25	4.92	5.59	5.25	5.91	7.57	8.24	
5			4.15	5.02	5.88	5.75	7.51	8.48	9.35	10.21	11.08	11.94
9				5.531	7.72	8.52	9.91	11.01	12.11	13.20	14.30	15.39
10					9.78	11.13	12.45	13.84	15.19	16.54	17.89	19.25
11					12.05	13.59	15.33	15.95	18.50	20.24	21.87	23.51
12					14.54	15.48	18.44	20.39	22.33	24.28	26.23	28.18

TOP DIAMETER 3.0 INCHES OUTSIDE BARK

5	.93	1.27	1.50	1.94	2.27	2.50	2.94	3.27	3.60			
5	1.52	2.00	2.48	2.95	3.44	3.92	4.40	4.88	5.36	5.84		
7		2.87	3.53	4.15	4.83	5.49	5.14	6.79	7.45	8.10	8.76	
8			4.73	5.58	5.43	7.29	8.14	9.00	9.85	10.70	11.56	12.41
9				7.17	8.24	9.33	10.41	11.49	12.57	13.65	14.73	15.81
10					10.28	11.61	12.94	14.28	15.61	16.95	18.28	19.61
11					12.52	14.13	15.74	17.36	18.97	20.59	20.20	23.82
12					14.97	15.89	18.81	20.73	22.66	24.58	26.50	28.42

TOP DIAMETER 2.0 INCHES OUTSIDE BARK

5	1.20	1.53	1.57	2.20	2.54	2.57	3.21	3.54	3.87			
5	1.79	2.27	2.75	3.23	3.71	4.19	4.57	5.15	5.53	5.11		
7		3.14	3.79	4.44	5.10	5.75	5.40	7.05	7.71	8.37	9.02	
8			4.99	5.84	5.70	7.55	8.41	9.25	10.11	10.97	11.82	12.68
9				7.431	8.52	9.50	10.58	11.75	12.84	13.92	15.00	16.08
10					10.54	11.88	13.21	14.54	15.88	17.21	18.55	19.88
11					12.78	14.40	15.01	17.53	19.24	20.85	22.45	24.08
12					15.24	17.15	19.08	21.00	22.92	24.84	26.76	28.57

Table 2. --Cubic foot volumes (inside bark) for slash pine plantations

TOP DIAMETER 4.0 INCHES OUTSIDE BARK												
D.b.h. (Inches)	Total tree height in feet--											
	20	25	30	35	40	45	50	55	60	65	70	75
Cubic feet												
5	--	.25	.52	.79	1.08	1.33	1.80	1.87	2.14			
8	.46	.85	1.24	1.82	2.01	2.40	2.79	3.18	3.57	3.95		
7		1.55	2.08	2.81	3.14	3.88	4.10	4.72	5.25	5.78	8.31	
6			3.05	3.74	4.43	5.12	5.81	8.50	7.10	7.88	8.57	0.28
9				5.02	5.89	6.77	7.84	8.52	0.30	10.28	11.14	12.01
10					7.54	8.81	0.80	10.77	11.85	12.03	14.01	15.08
11					9.35	10.65	11.96	13.26	14.57	15.87	17.18	18.48
12					11.33	12.88	14.44	15.99	17.54	19.10	20.65	22.20

TOP DIAMETER 3.0 INCHES OUTSIDE BARK												
5	.37	.64	.91	1.18	1.44	1.71	1.08	2.24	2.51			
8	.90	1.28	1.87	2.05	2.43	2.82	3.20	3.59	3.97	4.36		
7		1.97	2.50	3.02	3.54	4.07	4.59	5.11	5.64	6.16	6.68	
6			3.41	4.00	4.77	5.48	6.14	6.82	7.50	8.19	8.87	9.56
9				5.38	6.22	7.00	7.05	8.82	9.68	10.55	11.41	12.28
10					7.85	8.91	9.98	11.05	12.12	13.18	14.25	15.32
11					9.64	10.93	12.22	13.52	14.81	16.09	17.39	18.68
12					11.60	13.14	14.68	16.22	17.75	19.30	20.83	22.38

TOP DIAMETER 2.0 INCHES OUTSIDE BARK												
5	.57	.84	1.10	1.37	1.84	1.01	2.17	2.44	2.71			
8	1.04	1.43	1.81	2.10	2.58	2.08	3.35	3.73	4.12	4.50		
7		2.12	2.64	3.17	3.80	4.21	4.74	5.28	5.78	6.31	8.83	
6			3.60	4.29	4.07	5.65	8.34	7.02	7.70	8.39	9.07	9.76
9				5.58	6.42	7.29	8.15	0.02	0.88	10.75	11.61	12.48
10					8.05	9.12	10.18	11.25	12.32	13.39	14.46	15.52
11					9.84	11.13	12.42	13.72	15.01	16.30	17.59	18.89
12					11.81	13.34	14.88	16.42	17.96	19.49	21.03	22.57

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