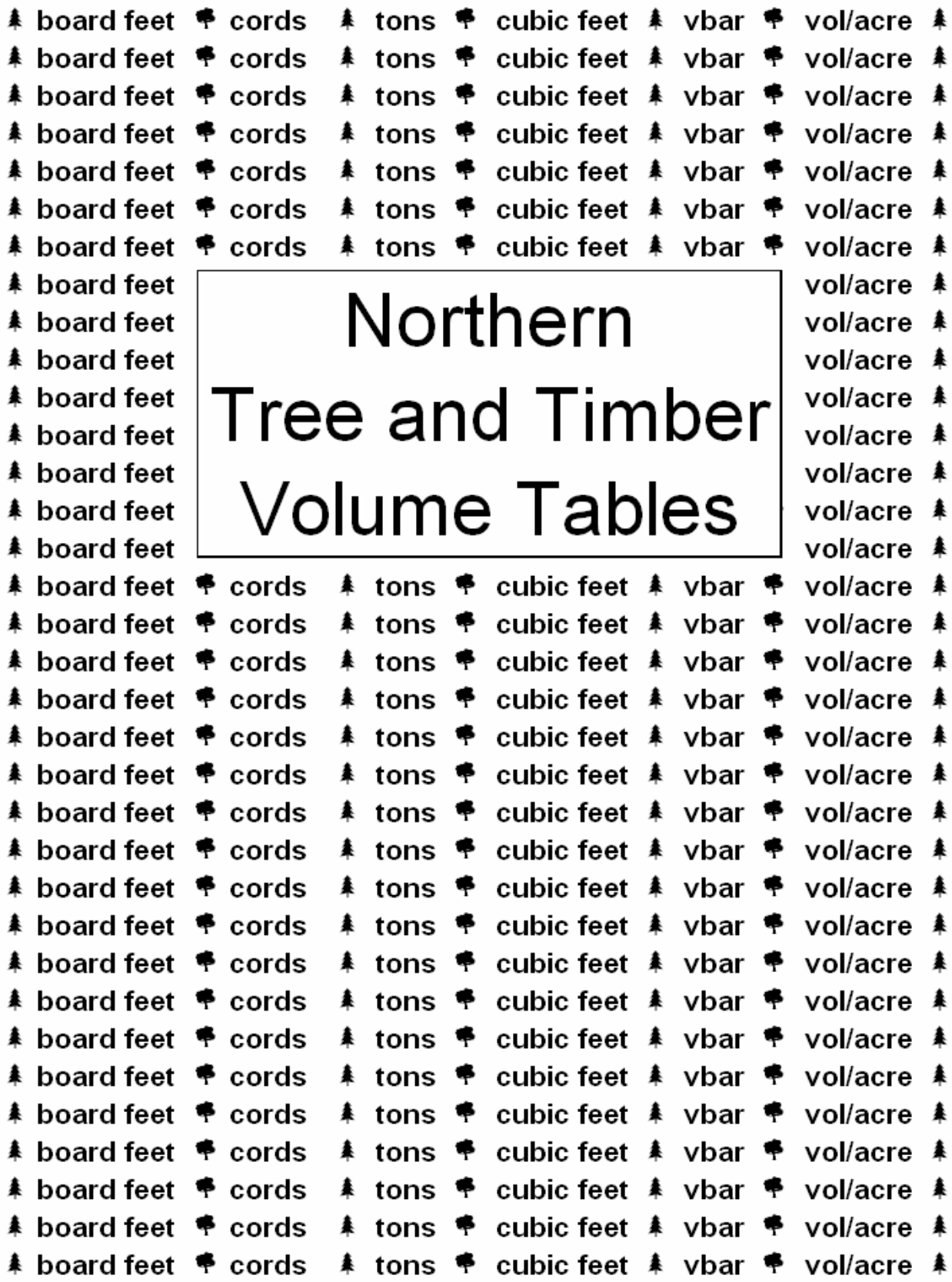

by
Steven Bick

NOTES ON USING VOLUME TABLES

The units that a tree volume may be expressed in include board feet (or thousand board feet), cords, cubic feet, and weight. Extensive timber volume tables for use in the Lake States, Appalachian region and the Northeastern US are included in this publication. The original source of these tables is stated case. Each table has been reformatted. Certain height or diameter categories have been omitted in a few cases. Some of the cordwood and cubic feet based tables have been used to derive weight tables using conversion factors from other sources.

Board Foot Volume Tables

An incredibly large selection of log rules have been used at one time or another to estimate the board foot volume of logs. Log rules use a combination of the diameter on the small end of the log inside the bark and the length of the log to reference a volume. Currently the most common of these are International, Scribner and Doyle rules. The Vermont and Maine rules are important in certain locations. Each of these log rules is based on a formula, with the exception of the Scribner rule, which is based diagrams of the boards that could be potentially sawn from a log.

Mesavage and Girard's (1946) classic USDA Forest Service work - *Tables for Estimating Board-Foot Volume of Timber* - are perhaps the most commonly used board foot volume tables in the eastern United States. The bulk of these tables, with minor modifications, are included here. These tables show board foot tree volumes in International, Scribner and Doyle rules. One note of caution in referencing volumes from these tables is that each page looks very similar to the others, so it is easy to accidentally look up volumes on the wrong page!

Once a scale is selected, the appropriate *Form Class* for the species is determined. The form class is a variable used to capture the amount of tape in the tree. In general, there are different amounts of taper among different tree species. The form classes included in the volume tables in this book range from 75 to 85. Specifically, the form class number is the result of dividing the diameter inside the bark at the small end of the first 16' log by the DBH. The higher the form class, the less tree tapers. Less taper means more volume. Volumes tend to increase by 3% with each increase in form class. In general, the form class will be uniform for trees of an individual species in an area. While the form class of each species could be measured in the field (be sure to bring your ladder along!), this wouldn't be terribly practical. Mesavage and Girard list average form classes for various species by region with their volume tables. The average form classes for various species for the Northeast, Appalachian and Lake States regions are show in Table 1.

Once the correct table for the combination of form class and log rule is determined, reference the tree's volume by looking down the DBH column (DBH's are listed in 1" intervals from 10-40") and then across to the appropriate height column. The board foot volume for every possible category of DBH and height is given. Heights in Mesavage and Girard's tables are expressed in the number of 16' logs, at half log

Table 2-1. Average form class by species for the Appalachian, Lake States and Northeast regions.

	AVERAGE FORM CLASS BY REGION		
SPECIES	Appalachian	Lake States	Northeast
balsam fir	-	80	80
basswood	80	78	80
beech	84	82	84
birches	78	78	78
black cherry	82	80	80
cottonwood and willow	78	78	78
hemlock	78	77	78
hickories	78	78	78
maples	79	78	79
red oaks	78	78	78
sprcue	82	80	78
sweetgum and blackgum	78	80	78
upland ashes	82	82	80
walnut	78	78	78
white oak (old growth)	82	80	82
white oak (second growth)	78	78	78
white pine	79	78	80
yellow poplar (old growth)	82	80	80
yellow poplar (second growth)	78	78	78
other common hardwoods	78	78	78

source:
Mesavage, Clement and James W. Girard. 1946. *Tables for Estimating Board-Foot Volume of Timber*. USDA Forest Service. 94 p.

intervals. The original tables have been updated in this book to include a height of 0.5 logs. Other volume tables may express heights in feet, at one, five, eight or ten foot intervals.

Mesavage and Girard's tables are a very good general purpose collection for sawtimber. For some species and utilization standards there are even more specific tables available and included here. For example, spruce and fir sawtimber can be used to a much smaller upper diameter than many other species. Form class 78 and 80 International and Maine rule tables that take these smaller upper diameters into account have been.

Occasionally the purpose of measuring a tree is only to determine the volume that meets a certain quality standards, such as veneer logs. This measurement will usually only involve but logs and go to much shorter heights. A set of tables in International, Scribner and Doyle rules for Form Classes 78, 79 and 80 in heights ranging from 8-24' has been included for this purpose.

Mesavage and Girard's form class tables have been widely used for decades because they remain a reliable predictor of volumes. Advances in mensuration have resulted in formula based board foot volume tables from field samples and regression analysis. Several such useful tables originating in Pennsylvania and Maine have been included here.

In general, the closer the timber being measured resembles the timber that was sampled in creating such tables, the more reliable the tables will be. Board-foot volume table are critical because they are used in measuring the most valuable products, but they are more difficult to construct than tables based on cubic feet and weight because these measures are more readily quantified.

Cordwood, Cubic Feet and Tonnage Tables

The volumes of pulpwood and similar products have traditionally been measured in cords or tons. Cords are easily measured on a truck or in a pile by calculating the space they occupy. A standard cord is all of the wood contained in 128 cubic feet. The amount of solid wood within this space is less. It is generally conceded that there is 90 cubic feet of solid wood volume in a cord. Cordwood volumes in trees are often calculated by first measuring cubic feet and then converting this measure to cords by dividing by 90.

Cord measurement is slowly being replaced by weight in tons in many markets. Often it is necessary to estimate pulpwood volumes both ways. An example of a hardwood pulpwood volume table is shown in Table 2-3. The source is Young's *Volume Tables for Maine* (1971). The original cordwood volumes were converted at a rate of 2.5 tons per cord.

As with board footage, many cubic foot volume tables have been created for individual species within regions. Cubic foot measurements are more accurate than the approximations provided by log rule tables. That's because they have been measured in tree stems, with the data derived from convenient and fairly reliable formulas. Merchantability factors have been calculated to exclude portions of the stems below minimum size requirements. Unfortunately, cubic foot measurement has yet to catch on in the marketplace. While it would probably add greater consistency, widespread acceptance is needed before buyers and sellers can make accurate comparisons between markets. Cubic meters have a similar appeal in the international marketplace – but

widespread acceptance is bound to be a slow process. Some cubic foot volume tables have been used to create cordwood tables included in Appendix B.

Scaling logs by weight is easy if with the right scale. Weighing a standing tree and deducting for the unused portions in the field is another matter. Volume tables showing the weight of solid usable wood have been created by taking measurements of a tree's DBH and merchantable height, harvesting the tree and then weighing the logs. Weight-based volume tables have also been created from cordwood and cubic foot tables by using an average weight conversion factor for individual species. Cordwood volumes can be converted to tons using the appropriate conversion factor. When mixed species are involved, as is the case with hardwood pulpwood, conversions become less precise. A weighted average by species can be used, provided the tree tally shows how many trees of each species are involved, or at least a good general idea of the composition.

A range of pulpwood volume tables are included in Appendix B. These include cordwood and weight tables for hardwood, hemlock, white pine, red pine and others. In each case, the origin of the table is given.

Another measure that is particularly important for biomass measurement is total tree weight. Tree weight tables have been constructed based on DBH and total tree height for many species. This process involves cutting and weighing a large sample of trees, and deriving formulas from them to create a table. One such volume table is shown in Table 2-4. The source of this table is Montieth's *Whole Tree Weight Tables for New York* (1979). The original table was converted from pounds to tons. A selection of whole tree weight tables is included Appendix B.

Depending upon markets, there is usually a portion of each sawtimber tree that is unsuitable for sawlogs but can be sold as pulpwood. A rule of thumb for estimating the volume of pulpwood in hardwood [sawtimber tops] is to add one-half cord of pulpwood for each 1,000 board feet of sawlogs.

A more accurate approach, suitable for use with both hardwoods and softwoods, is to tally or otherwise estimate the number of eight-foot sticks of pulpwood in the upper stem. In hardwood sawtimber, assume that material in the upper tree stem above the last point that is ten inches in diameter measured inside the bark (DIB) is suitable only for pulpwood. If so, there are roughly 0.03 cords in each eight-foot bolt (assuming a five-inch DIB small end limit for pulpwood). In softwood timber, such as white pine, assuming that material in the upper tree stem above the last point that is eight-inch DIB is suitable only for pulpwood, there is roughly 0.02 cords in each eight-foot bolt (assuming a four-inch DIB small end limit for pulpwood).

A simple dot tally can be used to keep track of the total number of eight-foot bolts from all stems. Given the relatively low volumes and values involved, an experienced cruiser might just estimate the number of trees that contain an eight-foot bolt in the tops once the tally is complete. For example, in a timber sale cruise of 1,000 hardwood trees, assuming that two thirds of them contained two eight-foot bolts, means multiply 1,340 by 0.03 to arrive at an estimate of 40.2 cords.

Bibliography of Useful Volume Tables

Bickford, C.A. 1951. *Form-class Volume Tables for Estimating Board-foot Content of Northern Conifers*. USDA Forest Service: Northeastern Forest Experiment. Station. Station Paper No. 38

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Honer. T.G. 1967. *Standard Volume Tables And Merchantable Conversion Factors For The Commercial Tree Species Of Central And Eastern Canada*. Ottawa, Ontario: Forest Management Research and Service Institute. Information report, FMR-X-5. 150p.

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USDA Forest Service. 1984. *Tables Of Whole-Tree Weight for Selected U.S. Tree Species*. USDA Forest Service General Technical Report WO-42

Turner, Brian J. 1983. *Board-foot, Cubic-foot, and Cubic-meter Volume Tables for Commercial Forest Species of Pennsylvania*. State College, PA: Pennsylvania State University College of Agricultural Sciences Cooperative Extension. 46p..

Young, Harold E. 1971. *Additional volume tables for Maine*. University of Maine. Orono, ME. 40 p.

Tree Volume Tables

This section contains a wide array of tree volume tables. Individual tree volumes are shown in board feet by various log rules, cords and weight. The origin of each table is given. Most of them come from previously published public domain sources. Others have been derived from such sources through editing, conversion between units (e.g. cubic feet to cords, pounds to tons), or conversion between scales (e.g. cords to weight).

These tables are meant to be use in referencing individual tree volumes, most often to sum these volumes by species or product or for use plot sampling. These tables have been formatted for avoid confusion with the volume-basal area ratio (VBAR) tables that are show in a later appendix.

Mesavage & Girard's Form Class Tables

The first series of volume tables originate from Clement Mesavage and James W. Girard's *Tables for Estimating Board Foot Volume of Timber* (USDA Forest Service, 1946, 94 p.) Form class tables 75 through 85 are reproduced in their entirety for International, Scribner and Doyle rules. These tables have been supplemented by an additional column for ½ log (8') merchantable tree heights. These volumes were calculated using the volume-height distribution table show in Chapter 1. Specifically, the volumes of one log trees were multiplied by 55% to arrive at ½ log tree volumes.

The average form classes for various species in the Appalachian, Lake States and Northeast regions is shown in Chapter 2. Use of the volume table for the average form class is recommended, unless field measurement or local knowledge indicate that an alternative form class is more accurate. Recall that the form class volume tables vary from one to the next by about three percent.

Mesavage and Girard's original publication has form classes ranging from 65 to 90 in all three logs rules. This publication is has been reprinted and is still available from of the forestry supply catalog merchants. It recommended as instructive reading for all those interested in timber measurements.

Mesavage & Girard's

FC 75 International Rule

FORM CLASS 75 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	18	33	43	53								
11	23	42	55	68								
12	28	51	67	83	95	107						
13	34	62	82	102	117	132						
14	40	72	96	120	138	157	169	181				
15	46	84	113	142	164	187	203	219				
16	53	97	130	163	190	217	237	257				
17	61	111	150	188	220	252	275	298				
18	69	125	169	213	250	286	312	339				
19	78	141	192	242	284	326	356	386				
20	86	157	214	271	318	365	399	433	460	488		
21	96	175	239	303	356	410	449	488	521	554		
22	106	193	264	335	394	454	499	544	582	620		
23	117	212	291	370	437	504	553	602	647	692		
24	128	232	318	405	479	553	606	659	712	764		
25	140	254	349	444	525	606	666	727	786	844		
26	151	275	379	483	572	660	728	795	860	924		
27	164	298	412	525	622	720	793	866	938	1010		
28	177	321	444	567	673	779	858	938	1016	1095	1164	1234
29	190	346	479	612	727	842	928	1014	1102	1189	1270	1352
30	204	371	514	658	782	905	998	1090	1186	1283	1276	1469
31	219	398	552	706	841	976	1078	1180	1281	1382	1485	1588
32	233	424	590	755	901	1047	1158	1270	1376	1481	1594	1708
33	249	452	630	807	964	1121	1240	1360	1474	1589	1714	1838
34	265	481	670	859	1027	1195	1322	1450	1574	1697	1833	1969
35	282	512	714	916	1096	1276	1414	1551	1684	1817	1958	2100
36	298	542	758	974	1166	1357	1504	1652	1794	1937	2084	2232
37	316	574	803	1032	1238	1445	1602	1758	1914	2069	2224	2380
38	333	606	848	1091	1312	1533	1698	1864	2032	2201	2364	2528
39	352	640	898	1156	1389	1622	1801	1980	2154	2327	2502	2676
40	371	674	947	1220	1466	1712	1904	2095	2274	2453	2638	2824

FC 75 International Rule

Mesavage & Girard's

FC 76 International Rule

FORM CLASS 76 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	19	34	44	55	62	69						
11	24	43	56	70	80	90						
12	29	52	68	85	98	110						
13	35	63	84	104	120	136						
14	41	74	99	124	143	162	174	186				
15	48	87	116	146	170	194	210	226				
16	55	100	134	169	198	226	246	267				
17	63	114	154	195	228	262	286	310				
18	71	129	175	221	259	297	325	353				
19	80	146	198	250	294	337	369	401				
20	89	162	220	279	328	377	413	449	478	507		
21	99	180	246	312	367	422	463	504	538	573		
22	109	198	271	344	406	467	514	560	600	639		
23	120	218	299	380	448	517	568	618	665	712		
24	130	237	326	415	491	567	622	676	730	785		
25	143	260	359	458	542	626	688	751	812	872		
26	156	284	392	500	592	684	755	826	892	959		
27	169	308	425	542	644	745	822	898	972	1046		
28	182	331	458	585	696	806	888	971	1052	1134	1207	1280
29	196	356	494	631	750	870	959	1048	1139	1230	1314	1398
30	210	381	529	677	805	933	1029	1125	1226	1326	1422	1517
31	224	408	567	726	866	1005	1110	1216	1321	1426	1532	1639
32	239	435	606	776	926	1077	1192	1307	1417	1527	1644	1761
33	255	464	646	828	990	1152	1276	1399	1518	1636	1764	1893
34	271	493	687	881	1054	1227	1359	1491	1618	1746	1886	2025
35	289	526	735	944	1130	1316	1460	1600	1738	1877	2023	2169
36	307	559	782	1006	1205	1404	1557	1710	1859	2008	2160	2313
37	326	592	829	1066	1280	1493	1656	1818	1980	2142	2303	2464
38	343	624	874	1125	1354	1582	1754	1926	2101	2276	2445	2614
39	362	658	924	1190	1432	1673	1858	2042	2223	2404	2584	2765
40	381	693	974	1256	1510	1764	1962	2159	2346	2532	2724	2916

FC 76 International Rule

Mesavage & Girard's

FC 77 International Rule

FORM CLASS 77 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16 FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	19	35	46	57	64	70						
11	24	44	58	72	82	92						
12	30	54	71	88	102	115						
13	36	66	87	108	125	142						
14	42	77	103	129	149	169	182	196				
15	50	90	120	151	176	200	218	235				
16	56	102	138	173	202	231	252	274				
17	65	118	159	200	234	269	294	320				
18	73	133	180	228	268	307	336	366				
19	83	150	204	258	303	348	382	415				
20	91	166	226	287	338	388	426	464	494	524		
21	101	184	252	320	377	434	477	520	556	592		
22	112	203	278	354	417	480	528	577	618	660		
23	123	224	308	392	464	535	588	640	690	739		
24	135	246	338	431	510	590	647	704	761	818		
25	147	268	370	471	558	646	710	775	838	900		
26	160	290	400	511	606	701	774	846	914	983		
27	174	316	437	558	662	767	846	926	1002	1079		
28	188	341	472	604	718	833	919	1005	1090	1175	1251	1327
29	201	366	508	650	774	898	990	1083	1178	1272	1360	1448
30	216	392	544	697	830	962	1062	1161	1266	1370	1469	1568
31	231	420	584	748	892	1035	1144	1254	1363	1472	1582	1692
32	246	447	622	798	953	1108	1228	1347	1461	1575	1696	1816
33	263	478	666	855	1022	1190	1319	1448	1571	1694	1827	1966
34	280	509	710	912	1092	1271	1410	1548	1680	1813	1958	2104
35	297	540	756	971	1162	1354	1503	1652	1794	1937	2089	2241
36	315	572	801	1030	1234	1438	1596	1755	1908	2061	2220	2378
37	334	607	850	1094	1314	1534	1703	1872	2039	2206	2373	2540
38	353	642	909	1159	1395	1631	1810	1989	2170	2351	2527	2703
39	372	677	952	1226	1476	1724	1916	2108	2295	2482	2669	2856
40	392	712	1002	1292	1554	1816	2021	2226	2420	2613	2812	3010

FC 77 International Rule

FC 78 International Rule

FORM CLASS 78 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	20	36	48	59	66	73						
11	25	46	61	76	86	96						
12	31	56	74	92	106	120	128	137				
13	37	67	90	112	130	147	158	168				
14	43	78	105	132	153	174	187	200				
15	51	92	124	156	182	208	225	242				
16	58	106	143	180	210	241	263	285				
17	67	121	164	206	242	278	304	330				
18	75	136	184	233	274	314	344	374				
19	85	154	209	264	311	358	392	427				
20	94	171	234	296	348	401	440	480	511	542		
21	105	191	262	332	391	450	496	542	579	616		
22	116	211	290	368	434	500	552	603	647	691		
23	127	231	318	404	478	552	608	663	714	766		
24	138	251	346	441	523	605	664	723	782	840		
25	151	275	380	484	574	665	732	800	865	930		
26	164	299	414	528	626	725	801	877	949	1021		
27	178	323	448	572	680	788	870	952	1032	1111		
28	191	347	482	616	733	850	938	1027	1114	1201	1280	1358
29	206	375	521	667	794	920	1016	1112	1210	1308	1398	1488
30	222	403	560	718	854	991	1094	1198	1306	1415	1517	1619
31	238	432	602	772	921	1070	1184	1299	1412	1526	1640	1754
32	254	462	644	826	988	1149	1274	1400	1518	1637	1762	1888
33	271	492	686	880	1053	1226	1360	1495	1622	1750	1888	2026
34	287	521	728	934	1119	1304	1447	1590	1727	1864	2014	2163
35	305	555	776	998	1196	1394	1548	1702	1851	2000	2156	2312
36	324	589	826	1063	1274	1485	1650	1814	1974	2135	2298	2461
37	342	622	873	1124	1351	1578	1752	1926	2099	2272	2444	2616
38	361	656	921	1186	1428	1670	1854	2038	2224	2410	2590	2771
39	382	694	976	1258	1514	1769	1968	2166	2359	2552	2744	2937
40	402	731	1030	1329	1598	1868	2081	2294	2494	2693	2898	3103

FC 78 International Rule

Mesavage & Girard's

FC 79 International Rule

FORM CLASS 79 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	21	38	50	61	69	77						
11	26	48	63	78	89	100						
12	32	58	77	96	110	124	132	141				
13	39	70	94	117	135	153	164	176				
14	45	82	110	138	160	182	196	211				
15	52	95	128	160	187	214	233	252				
16	59	108	146	183	214	246	269	292				
17	68	124	168	212	249	286	313	340				
18	77	140	190	240	282	325	356	388				
19	87	158	215	272	321	370	406	442				
20	97	176	240	305	360	414	455	496	528	561		
21	108	196	269	342	403	464	511	558	597	636		
22	119	216	297	378	446	514	568	621	666	710		
23	131	238	328	418	494	571	629	687	740	792		
24	143	260	359	458	543	628	690	753	814	875		
25	155	282	390	499	592	685	756	826	893	960		
26	168	305	422	540	641	742	820	899	972	1046		
27	182	331	460	588	699	810	895	980	1062	1144		
28	196	357	496	635	756	877	969	1061	1152	1242	1323	1404
29	212	385	536	686	817	948	1048	1148	1249	1350	1444	1537
30	227	413	575	737	878	1020	1128	1235	1346	1458	1564	1670
31	244	444	618	792	946	1100	1219	1338	1455	1572	1690	1808
32	261	474	661	848	1014	1181	1310	1440	1562	1685	1815	1945
33	278	506	706	907	1086	1265	1404	1544	1676	1808	1951	2094
34	296	538	752	966	1158	1349	1498	1647	1790	1932	2088	2244
35	314	570	798	1026	1230	1435	1594	1754	1907	2060	2222	2384
36	331	602	844	1087	1304	1521	1690	1860	2024	2189	2357	2525
37	351	638	896	1154	1387	1620	1800	1980	2159	2338	2516	2694
38	371	674	947	1220	1470	1720	1910	2101	2294	2488	2675	2862
39	392	712	1002	1292	1557	1822	2027	2232	2432	2632	2832	3031
40	413	750	1058	1365	1644	1923	2142	2362	2568	2775	2988	3200

FC 79 International Rule

FC 80 International Rule

FORM CLASS 80 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	21	39	51	63	72	80						
11	27	49	64	80	92	104						
12	32	59	78	98	112	127	136	146				
13	39	71	96	120	138	156	168	181				
14	46	83	112	141	164	186	201	216				
15	54	98	132	166	194	221	240	260				
16	62	112	151	190	223	256	280	305				
17	70	128	174	219	258	296	325	354				
18	79	144	196	248	292	336	369	402				
19	89	162	222	281	332	382	420	457				
20	100	181	248	314	370	427	470	512	546	580		
21	111	201	276	350	414	478	526	575	616	656		
22	122	221	304	387	458	528	583	638	685	732		
23	134	244	336	428	507	586	646	706	761	816		
24	146	266	368	469	556	644	708	773	836	899		
25	160	290	402	514	610	706	779	852	922	992		
26	173	315	436	558	662	767	849	931	1008	1086		
27	188	341	474	606	721	836	925	1014	1100	1185		
28	202	367	510	654	779	904	1000	1096	1190	1284	1368	1453
29	218	396	551	706	842	977	1080	1184	1289	1394	1491	1588
30	233	424	591	758	904	1050	1161	1272	1388	1503	1613	1723
31	250	454	634	814	973	1132	1254	1376	1497	1618	1740	1862
32	267	485	678	870	1042	1213	1346	1480	1606	1733	1867	2001
33	285	518	724	930	1114	1298	1442	1586	1722	1858	2005	2152
34	303	550	770	989	1186	1383	1537	1691	1838	1984	2144	2304
35	322	585	820	1055	1266	1477	1642	1806	1965	2124	2291	2458
36	341	620	870	1121	1346	1571	1746	1922	2093	2264	2438	2612
37	361	656	922	1188	1430	1672	1858	2044	2230	2416	2600	2783
38	381	693	974	1256	1514	1772	1970	2167	2368	2568	2761	2954
39	403	732	1031	1330	1602	1874	2087	2300	2507	2714	2920	3127
40	424	770	1086	1403	1690	1977	2204	2432	2646	2860	3080	3300

FC 80 International Rule

FC 81 International Rule

FORM CLASS 81 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	22	40	52	65	74	82						
11	28	50	66	82	94	106						
12	33	60	80	100	115	130	140	150				
13	40	72	97	122	141	160	173	186				
14	47	85	114	144	167	190	206	221				
15	55	100	135	170	199	228	248	268				
16	63	115	156	197	231	265	290	316				
17	73	132	179	226	266	306	336	366				
18	81	148	202	256	301	346	380	415				
19	91	166	228	290	341	392	432	471				
20	102	185	254	323	381	439	483	527	562	598		
21	113	206	283	360	426	492	542	592	634	676		
22	125	227	312	398	471	544	600	656	705	754		
23	138	250	344	439	520	602	663	724	781	838		
24	150	272	376	480	570	659	725	791	857	923		
25	164	298	413	528	627	726	802	877	950	1024		
26	178	324	450	575	684	793	878	963	1044	1124		
27	193	351	488	624	744	863	955	1047	1136	1226		
28	208	378	526	674	804	933	1032	1131	1229	1327	1414	1502
29	223	406	566	726	866	1006	1113	1220	1329	1438	1539	1640
30	239	435	607	779	930	1080	1	1310	1430	1549	1663	1777
31	256	466	651	836	999	1162	1289	1416	1541	1666	1792	1918
32	273	497	694	892	1068	1245	1384	1522	1653	1784	1922	2059
33	292	530	742	953	1142	1332	1480	1628	1769	1910	2062	2214
34	310	563	788	1014	1216	1419	1576	1734	1886	2037	2202	2368
35	330	600	842	1084	1301	1518	1688	1859	2024	2188	2361	2534
36	350	637	896	1154	1386	1618	1801	1984	2161	2338	2519	2700
37	371	674	948	1223	1472	1721	1915	2109	2302	2494	2684	2874
38	392	712	1002	1292	1558	1824	2029	2234	2442	2649	2849	3049
39	413	751	1058	1366	1647	1928	2148	2368	2582	2796	3010	3224
40	435	790	1116	1441	1736	2032	2267	2502	2723	2944	3172	3399

FC 81 International Rule

FC 82 International Rule

FORM CLASS 82 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	23	41	54	67	76	85						
11	29	52	68	85	98	110						
12	34	62	82	103	119	135	145	155				
13	41	75	100	126	146	167	180	193				
14	48	88	119	150	174	199	215	231				
15	56	102	138	175	204	234	255	276				
16	64	117	158	200	235	270	296	322				
17	74	135	184	232	273	314	345	376				
18	84	153	209	265	312	359	394	430				
19	95	172	235	298	352	406	446	486				
20	105	190	261	332	392	453	498	543	580	617		
21	116	211	290	370	438	505	556	608	652	696		
22	128	232	320	408	482	557	616	674	725	776		
23	141	256	354	452	536	620	684	748	808	868		
24	155	281	389	497	590	683	752	822	890	959		
25	168	306	424	542	644	747	826	904	980	1055		
26	182	331	460	588	700	811	899	987	1069	1151		
27	198	360	500	640	763	886	982	1077	1169	1261		
28	213	388	540	693	827	961	1064	1167	1269	1371	1461	1551
29	230	418	582	747	892	1036	1147	1258	1371	1484	1588	1691
30	246	447	624	801	956	1111	1230	1350	1474	1597	1714	1831
31	263	478	668	858	1026	1194	1325	1456	1586	1716	1846	1975
32	280	509	712	915	1096	1278	1420	1563	1698	1834	1976	2119
33	299	544	762	980	1176	1372	1525	1678	1825	1972	2129	2286
34	319	580	813	1046	1256	1465	1630	1794	1952	2110	2281	2452
35	339	616	865	1114	1338	1561	1738	1914	2084	2253	2432	2610
36	358	651	916	1181	1419	1657	1845	2033	2214	2396	2582	2769
37	380	691	973	1255	1511	1767	1968	2168	2366	2563	2760	2958
38	402	731	1030	1329	1603	1877	2090	2302	2516	2730	2938	3146
39	424	770	1067	1404	1693	1982	2210	2438	2660	2881	3102	3323
40	446	810	1144	1479	1784	2088	2330	2573	2802	3032	3266	3500

FC 82 International Rule

FC 83 International Rule

FORM CLASS 83 International 1/4-inch rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	23	42	56	69	78	88						
11	30	54	71	88	102	115						
12	36	65	86	108	125	142	153	164				
13	43	78	104	130	152	173	187	201				
14	50	90	122	153	178	204	221	238				
15	58	106	143	180	211	242	264	286				
16	67	121	164	208	244	280	308	335				
17	76	138	188	238	280	322	354	386				
18	85	155	212	269	316	364	400	437				
19	96	175	240	305	360	414	456	498				
20	107	195	268	341	403	465	512	560	598	637		
21	120	218	300	382	452	522	576	631	676	722		
22	132	240	332	423	501	579	640	702	755	808		
23	145	264	365	466	553	640	706	772	834	895		
24	158	287	398	508	604	700	771	842	912	982		
25	173	314	436	558	664	769	850	932	1010	1087		
26	188	341	474	607	722	838	930	1021	1106	1192		
27	202	368	512	656	782	909	1008	1106	1201	1296		
28	217	395	550	706	843	980	1086	1192	1296	1401	1493	1585
29	234	426	595	764	912	1061	1176	1290	1406	1522	1629	1736
30	252	458	640	822	982	1142	1265	1388	1516	1644	1765	1886
31	271	492	688	884	1058	1233	1368	1504	1639	1774	1908	2042
32	289	526	736	947	1136	1324	1472	1620	1762	1903	2051	2199
33	308	560	784	1009	1210	1412	1571	1730	1882	2034	2196	2358
34	326	593	832	1071	1286	1501	1670	1839	2002	2164	2340	2516
35	347	631	887	1143	1374	1604	1786	1968	2144	2320	2504	2688
36	368	669	942	1215	1461	1707	1902	2096	2286	2475	2668	2860
37	389	707	996	1286	1549	1812	2018	2224	2428	2633	2836	3039
38	410	745	1050	1356	1637	1918	2136	2353	2572	2791	3004	3218
39	433	788	1113	1438	1735	2032	2266	2500	2728	2955	3182	3410
40	457	831	1175	1519	1832	2145	2396	2648	2884	3119	3361	3603

FC 83 International Rule

FC 84 International Rule

FORM CLASS 84 International 1/4-inch rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	24	43	57	71	81	91						
11	30	54	72	91	104	118						
12	36	66	88	111	128	145	156	168				
13	44	80	108	135	156	178	193	208				
14	51	93	126	159	186	212	230	248				
15	59	108	146	185	217	249	272	295				
16	68	123	167	211	248	286	314	342				
17	78	142	193	244	288	332	365	398				
18	88	160	218	277	327	377	415	453				
19	99	180	247	314	371	428	471	524				
20	110	200	276	351	415	479	528	576	616	657		
21	123	223	308	392	464	537	593	649	696	744		
22	135	246	340	434	514	595	658	722	776	830		
23	149	271	376	480	570	660	729	798	862	925		
24	163	296	410	525	624	724	798	873	946	1020		
25	177	322	447	572	681	790	874	958	1038	1118		
26	191	347	483	619	737	855	948	1042	1130	1217		
27	207	376	524	673	802	932	1034	1136	1234	1331		
28	223	406	566	727	868	1010	1120	1230	1338	1445	1540	1636
29	241	438	612	786	939	1092	1211	1330	1450	1569	1680	1790
30	259	470	657	844	1008	1173	1301	1429	1561	1693	1818	1943
31	277	504	706	907	1086	1265	1406	1546	1684	1823	1962	2101
32	296	538	754	970	1164	1357	1510	1664	1868	1953	2106	2259
33	316	574	806	1037	1245	1453	1618	1782	1939	2096	2264	2431
34	336	611	858	1104	1326	1549	1725	1901	2070	2240	2422	2603
35	356	647	910	1173	1410	1648	1836	2023	2205	2387	2576	2766
36	376	683	962	1242	1494	1746	1946	2145	2341	2534	2732	2929
37	398	724	1021	1318	1588	1859	2072	2284	2495	2706	2914	3123
38	421	765	1079	1393	1682	1972	2197	2422	2650	2877	3097	3317
39	444	808	1142	1476	1782	2088	2329	2570	2806	3042	3277	3512
40	468	851	1204	1558	1880	2203	2461	2719	2964	3208	3457	3706

FC 84 International Rule

FC 85 International Rule

FORM CLASS 85 International 1/4-inch rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	25	45	60	74	84	94						
11	31	56	75	94	108	122						
12	37	68	91	114	132	150	162	173				
13	45	82	110	138	161	184	199	214				
14	52	95	129	163	190	217	236	254				
15	61	111	151	191	224	257	280	304				
16	70	127	173	219	258	297	326	355				
17	80	146	199	252	297	342	377	412				
18	90	164	224	285	336	388	428	468				
19	101	184	253	322	381	440	486	531				
20	113	205	282	360	426	492	543	594	636	678		
21	125	228	315	402	476	550	608	667	716	765		
22	138	251	348	444	526	609	674	740	796	852		
23	152	276	383	490	582	675	746	818	884	950		
24	166	302	420	537	639	741	818	895	971	1047		
25	182	330	459	588	700	812	899	986	1070	1153		
26	196	357	498	638	760	882	979	1076	1168	1259		
27	213	387	540	693	827	961	1066	1172	1273	1374		
28	229	417	582	748	894	1040	1154	1267	1378	1490	1590	1689
29	246	448	628	807	964	1122	1245	1368	1492	1616	1730	1844
30	265	481	674	866	1036	1205	1337	1469	1605	1741	1870	1999
31	284	516	723	930	1114	1298	1443	1588	1731	1874	2017	2160
32	303	550	772	993	1192	1391	1548	1706	1856	2006	2164	2321
33	323	587	824	1061	1274	1488	1658	1827	1988	2150	2322	2495
34	343	624	876	1129	1358	1586	1767	1948	2121	2294	2482	2669
35	365	663	934	1204	1448	1692	1888	2080	2267	2454	2650	2846
36	386	702	990	1278	1538	1797	2004	2212	2413	2614	2818	3022
37	409	744	1050	1355	1634	1912	2132	2352	2570	2788	3004	3219
38	432	785	1108	1432	1730	2027	2260	2493	2728	2962	3189	3416
39	455	828	1172	1515	1830	2144	2394	2644	2887	3130	3372	3614
40	480	872	1235	1598	1929	2260	2528	2795	3046	3298	3556	3813

FC 85 International Rule

FC 75 Scribner Rule

FORM CLASS 75 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	14	25	32	38								
11	19	34	43	52								
12	23	42	54	66	74	83						
13	29	52	68	84	96	107						
14	35	63	82	102	116	131	140	148				
15	41	74	98	122	141	160	172	184				
16	47	86	114	142	165	188	204	220				
17	55	100	133	166	193	220	240	260				
18	62	113	152	191	222	253	276	299				
19	70	128	173	218	255	292	318	344				
20	79	144	195	246	288	331	360	389	412	435		
21	88	160	218	276	324	372	406	441	470	498		
22	97	177	242	306	360	413	453	493	526	560		
23	108	196	268	340	401	462	505	548	588	629		
24	119	216	296	375	442	510	556	603	650	698		
25	130	236	324	412	486	560	615	670	722	774		
26	141	257	352	448	530	611	674	736	794	851		
27	154	280	385	490	580	669	736	804	869	934		
28	166	302	416	531	629	727	800	872	944	1017	1080	1144
29	179	326	451	576	682	789	868	946	1027	1108	1183	1258
30	193	351	486	620	736	851	936	1021	1110	1199	1286	1373
31	207	377	522	667	794	920	1014	1108	1202	1296	1392	1488
32	222	403	558	714	851	988	1092	1195	1294	1392	1497	1602
33	238	432	599	766	914	1062	1174	1285	1391	1497	1614	1730
34	253	460	639	818	976	1135	1255	1375	1488	1602	1730	1859
35	269	489	681	873	1043	1213	1342	1472	1596	1720	1853	1986
36	285	518	723	928	1110	1291	1430	1568	1704	1839	1976	2114
37	301	548	767	986	1182	1377	1524	1671	1818	1965	2112	2258
38	318	579	811	1043	1253	1463	1618	1774	1932	2091	2246	2402
39	337	613	860	1106	1328	1550	1718	1887	2050	2214	2379	2544
40	356	647	908	1169	1403	1637	1818	2000	2168	2337	2512	2687

FC 75 Scribner Rule

FC 76 Scribner Rule

FORM CLASS 76 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	14	26	33	40	44	48						
11	19	34	44	54	60	67						
12	24	43	56	68	77	86						
13	30	54	70	86	98	110						
14	35	64	84	105	120	135	144	152				
15	42	77	102	128	147	166	179	192				
16	50	90	120	150	174	198	214	231				
17	57	104	139	174	203	232	252	272				
18	64	117	158	198	232	265	288	312				
19	73	132	179	226	264	303	330	358				
20	81	148	201	254	298	341	372	403	428	452		
21	91	165	224	284	334	384	420	456	486	515		
22	100	182	248	315	370	426	468	509	544	578		
23	111	202	276	350	412	474	519	564	606	647		
24	122	221	303	385	454	523	572	620	668	716		
25	134	244	334	425	502	580	636	693	747	801		
26	146	266	366	465	550	636	701	766	826	886		
27	158	288	397	506	600	694	764	834	902	970		
28	171	311	430	548	650	752	828	903	979	1055	1122	1188
29	185	336	465	594	704	815	896	978	1062	1147	1226	1304
30	199	361	500	639	758	878	966	1054	1146	1239	1329	1419
31	213	388	537	686	817	948	1046	1143	1240	1338	1426	1537
32	228	414	574	734	876	1018	1125	1232	1334	1437	1546	1655
33	244	443	615	787	940	1093	1208	1322	1434	1545	1665	1785
34	260	472	656	840	1004	1168	1290	1413	1533	1653	1784	1915
35	277	503	702	900	1076	1252	1386	1520	1649	1778	1916	2054
36	294	534	747	960	1148	1337	1482	1626	1765	1904	2048	2192
37	311	566	792	1018	1221	1424	1577	1730	1882	2035	2186	2338
38	328	597	836	1075	1292	1510	1672	1835	2000	2166	2326	2485
39	347	631	885	1139	1369	1599	1774	1950	2120	2291	2462	2632
40	366	665	934	1202	1446	1688	1876	2064	2240	2416	2597	2778

FC 76 Scribner Rule

FC 77 Scribner Rule

FORM CLASS 77 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	15	27	34	42	46	49						
11	20	36	46	56	63	70						
12	25	45	58	71	80	90						
13	31	56	73	90	103	116						
14	37	67	88	110	126	142	152	161				
15	43	79	105	131	152	172	185	198				
16	50	91	122	152	176	201	218	235				
17	58	106	142	178	208	238	259	280				
18	67	121	163	205	240	275	300	325				
19	75	137	186	234	274	314	343	372				
20	84	153	208	263	308	353	386	418	444	470		
21	94	170	232	294	345	396	434	472	503	534		
22	103	187	256	324	382	439	482	525	561	597		
23	114	208	285	362	427	492	539	586	630	673		
24	126	229	314	400	472	544	596	648	698	749		
25	138	250	344	438	518	598	657	716	772	829		
26	150	272	374	476	564	651	718	785	847	909		
27	163	296	408	520	617	714	787	860	931	1002		
28	176	320	442	565	671	777	856	936	1015	1094	1162	1231
29	190	346	479	612	727	842	928	1013	1100	1188	1268	1349
30	205	372	516	659	782	906	998	1090	1186	1282	1374	1467
31	219	399	554	708	843	978	1079	1180	1281	1382	1485	1588
32	234	426	591	756	902	1049	1160	1271	1377	1483	1596	1709
33	251	456	634	812	970	1128	1248	1368	1484	1599	1724	1850
34	267	486	677	868	1037	1206	1336	1465	1590	1715	1852	1990
35	284	516	720	925	1106	1288	1428	1567	1700	1834	1978	2122
36	300	546	764	982	1176	1371	1520	1669	1812	1954	2104	2254
37	319	580	813	1046	1256	1465	1624	1782	1940	2098	2256	2413
38	338	615	862	1109	1334	1559	1727	1895	2068	2241	2406	2572
39	357	649	911	1173	1410	1648	1830	2011	2190	2368	2544	2721
40	376	683	960	1237	1488	1738	1932	2127	2310	2494	2682	2870

FC 77 Scribner Rule

FC 78 Scribner Rule

FORM CLASS 78 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	15	28	36	44	48	52						
11	21	38	49	60	67	74						
12	26	47	61	75	85	95	100	106				
13	32	58	76	94	107	120	128	136				
14	38	69	92	114	130	146	156	166				
15	45	82	109	136	157	178	192	206				
16	52	95	127	159	185	211	229	247				
17	60	109	146	184	215	246	268	289				
18	68	123	166	209	244	280	306	331				
19	77	140	190	240	281	322	352	382				
20	86	157	214	270	317	364	398	432	459	486		
21	97	176	240	304	358	411	450	490	523	556		
22	107	194	266	338	398	458	504	549	588	626		
23	118	214	294	374	441	508	558	607	652	698		
24	129	234	322	409	484	558	611	665	718	770		
25	142	258	355	452	534	617	678	740	799	858		
26	155	281	388	494	585	676	745	814	880	945		
27	167	304	420	536	636	736	811	886	959	1032		
28	180	327	452	578	686	795	877	959	1040	1120	1190	1261
29	195	354	491	628	746	864	953	1042	1132	1222	1306	1389
30	210	382	530	678	806	933	1028	1124	1224	1325	1421	1517
31	226	411	571	731	871	1011	1117	1223	1328	1434	1541	1648
32	242	440	612	784	936	1089	1206	1322	1432	1543	1661	1779
33	258	469	654	838	1001	1164	1289	1414	1534	1654	1783	1912
34	274	498	695	892	1066	1239	1373	1507	1636	1766	1906	2046
35	292	530	742	954	1141	1328	1473	1618	1757	1896	2044	2192
36	310	563	789	1015	1216	1416	1572	1728	1877	2026	2182	2338
37	328	596	836	1075	1290	1506	1670	1835	1998	2160	2324	2488
38	346	629	882	1135	1366	1596	1769	1942	2118	2295	2466	2637
39	366	666	935	1204	1449	1694	1881	2068	2251	2434	2616	2799
40	387	703	988	1274	1532	1791	1993	2195	2384	2574	2768	2961

FC 78 Scribner Rule

FC 79 Scribner Rule

FORM CLASS 79 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	16	29	37	45	50	55						
11	21	38	50	61	68	76						
12	26	48	62	77	88	98	104	109				
13	33	60	79	98	112	126	134	142				
14	40	72	96	119	136	154	165	176				
15	46	84	112	141	163	185	200	214				
16	53	97	130	163	190	216	234	253				
17	62	112	151	190	222	254	276	299				
18	70	127	172	217	254	291	318	345				
19	79	144	196	248	291	334	365	396				
20	89	161	220	278	327	376	412	447	475	503		
21	99	180	246	312	368	424	465	506	540	574		
22	109	199	273	347	409	471	518	566	606	645		
23	122	221	304	386	456	526	578	630	678	725		
24	134	243	334	425	503	581	638	694	750	805		
25	146	265	365	465	550	636	700	764	826	888		
26	158	287	396	505	598	691	763	835	902	970		
27	172	312	432	551	654	756	835	914	990	1065		
28	185	337	467	597	710	822	907	992	1076	1160	1234	1307
29	201	366	507	648	770	892	985	1078	1172	1266	1352	1438
30	217	394	546	699	830	962	1062	1163	1267	1371	1470	1568
31	233	423	588	752	897	1042	1152	1263	1372	1480	1591	1702
32	249	452	629	806	964	1121	1242	1363	1476	1590	1712	1835
33	266	483	673	863	1032	1202	1332	1463	1588	1712	1846	1981
34	283	514	717	920	1102	1283	1423	1563	1698	1833	1980	2127
35	299	544	762	980	1174	1367	1516	1666	1811	1956	2110	2264
36	316	575	807	1039	1245	1451	1610	1770	1924	2079	2240	2401
37	336	611	858	1104	1326	1548	1718	1888	2056	2225	2394	2563
38	356	647	908	1169	1407	1645	1826	2007	2189	2371	2548	2725
39	376	684	962	1239	1492	1744	1940	2135	2324	2512	2702	2891
40	397	722	1016	1309	1576	1844	2054	2263	2458	2654	2856	3057

FC 79 Scribner Rule

FC 80 Scribner Rule

FORM CLASS 80 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	17	30	38	47	52	57						
11	22	40	52	64	72	80						
12	28	50	65	80	91	102	108	115				
13	34	62	82	101	116	130	139	148				
14	41	74	98	122	140	158	170	181				
15	48	88	117	146	169	192	208	223				
16	56	101	136	170	198	226	246	265				
17	64	116	156	197	230	264	288	312				
18	72	131	178	224	263	302	330	359				
19	81	148	202	256	300	345	378	411				
20	91	166	226	287	338	388	426	463	492	522		
21	102	185	254	322	379	436	480	523	558	594		
22	112	204	280	357	420	484	534	583	624	666		
23	124	226	311	396	468	540	594	648	697	746		
24	136	248	342	435	515	595	654	712	770	827		
25	150	272	376	479	568	656	722	788	852	917		
26	163	296	410	523	620	716	790	865	936	1007		
27	177	322	446	570	677	784	865	946	1025	1104		
28	191	348	482	617	734	851	940	1028	1114	1200	1278	1357
29	207	376	522	667	794	921	1017	1113	1210	1306	1396	1487
30	222	403	560	717	854	991	1094	1198	1306	1413	1515	1617
31	239	434	604	773	922	1072	1186	1300	1413	1526	1640	1755
32	255	464	646	829	991	1153	1278	1402	1520	1639	1766	1893
33	272	495	690	886	1061	1236	1370	1504	1632	1761	1900	2038
34	289	526	735	944	1131	1318	1462	1607	1745	1883	2034	2184
35	307	559	783	1007	1208	1408	1563	1718	1868	2018	2175	2332
36	326	592	831	1070	1284	1498	1664	1830	1902	2153	2317	2481
37	345	628	882	1136	1366	1597	1774	1950	2126	2302	2475	2648
38	366	665	934	1203	1450	1696	1883	2070	2260	2451	2634	2816
39	387	703	989	1275	1536	1796	1998	2200	2396	2593	2788	2984
40	408	741	1044	1347	1622	1897	2113	2329	2532	2735	2944	3153

FC 80 Scribner Rule

FC 81 Scribner Rule

FORM CLASS 81 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	17	31	40	49	54	60						
11	23	41	54	66	74	82						
12	28	51	66	82	94	105	112	119				
13	35	63	84	104	119	134	143	152				
14	41	75	100	125	144	162	174	185				
15	50	90	120	150	174	198	214	230				
16	55	100	140	176	205	234	255	276				
17	68	124	162	204	239	274	299	324				
18	74	135	184	232	272	313	342	372				
19	84	153	208	264	310	357	392	426				
20	94	171	234	296	348	401	440	479	509	539		
21	105	190	261	332	391	450	495	540	576	639		
22	116	210	288	367	433	499	550	600	644	687		
23	128	232	319	406	480	555	610	666	717	768		
24	140	254	350	445	528	611	672	732	791	850		
25	154	280	386	492	584	676	745	814	881	948		
26	168	305	422	539	640	740	818	896	970	1045		
27	183	332	460	588	698	809	894	978	1060	1143		
28	197	358	497	636	757	878	970	1061	1151	1241	1323	1405
29	212	386	536	686	818	950	1049	1148	1249	1350	1444	1538
30	228	414	576	737	879	1021	1128	1234	1347	1460	1566	1671
31	244	444	619	794	948	1102	1219	1336	1455	1574	1692	1809
32	261	475	662	850	1016	1183	1311	1439	1563	1687	1817	1947
33	278	506	707	908	1088	1268	1406	1544	1676	1809	1953	2097
34	296	538	752	967	1160	1352	1501	1650	1790	1931	2089	2247
35	316	574	803	1036	1243	1450	1610	1770	1925	2080	2244	2408
36	336	611	858	1105	1326	1547	1719	1891	2060	2228	2399	2570
37	356	647	909	1171	1408	1646	1830	2013	2196	2378	2558	2739
38	376	683	960	1237	1491	1745	1940	2135	2332	2528	2718	2908
39	397	722	1016	1311	1580	1848	2057	2266	2470	2673	2876	3080
40	419	761	1073	1385	1668	1951	2174	2398	2608	2818	3036	3253

FC 81 Scribner Rule

FC 82 Scribner Rule

FORM CLASS 82 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	18	32	42	51	57	63						
11	23	42	55	68	77	86						
12	29	52	68	84	96	109	116	122				
13	36	65	86	107	124	140	150	159				
14	43	78	104	130	150	170	183	196				
15	51	92	124	155	180	205	222	239				
16	58	106	143	180	210	240	261	282				
17	68	123	166	210	246	282	308	334				
18	77	140	190	241	283	325	356	386				
19	87	158	215	272	320	369	404	440				
20	96	175	240	304	358	413	454	494	526	557		
21	108	196	268	340	402	464	510	556	594	632		
22	119	216	296	377	446	514	566	619	664	708		
23	132	240	330	420	497	574	632	690	743	796		
24	145	263	362	462	548	635	698	761	823	885		
25	158	287	396	506	601	696	768	840	909	978		
26	171	311	431	551	654	756	838	919	995	1071		
27	187	340	472	603	716	830	919	1008	1092	1177		
28	202	368	512	655	780	904	1000	1096	1190	1283	1368	1452
29	218	397	552	708	843	978	1082	1185	1290	1394	1492	1589
30	234	426	593	760	906	1052	1163	1274	1389	1504	1615	1726
31	251	456	636	816	974	1132	1255	1378	1499	1620	1742	1865
32	267	486	679	872	1042	1213	1348	1482	1609	1736	1870	2004
33	286	520	728	935	1120	1306	1450	1594	1732	1869	2018	2166
34	305	554	776	998	1198	1398	1552	1707	1854	2002	2166	2329
35	324	589	826	1064	1278	1491	1656	1822	1982	2142	2312	2481
36	343	624	877	1130	1357	1584	1760	1937	2110	2282	2458	2633
37	365	664	933	1202	1447	1692	1881	2070	2258	2446	2632	2818
38	387	703	988	1274	1536	1799	2001	2203	2406	2610	2806	3002
39	408	742	1045	1348	1625	1902	2118	2335	2546	2756	2966	3176
40	429	780	1101	1422	1713	2004	2236	2467	2685	2903	3126	3349

FC 82 Scribner Rule

FC 83 Scribner Rule

FORM CLASS 83 **International 1/4-inch rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	23	42	56	69	78	88						
11	30	54	71	88	102	115						
12	36	65	86	108	125	142	153	164				
13	43	78	104	130	152	173	187	201				
14	50	90	122	153	178	204	221	238				
15	58	106	143	180	211	242	264	286				
16	67	121	164	208	244	280	308	335				
17	76	138	188	238	280	322	354	386				
18	85	155	212	269	316	364	400	437				
19	96	175	240	305	360	414	456	498				
20	107	195	268	341	403	465	512	560	598	637		
21	120	218	300	382	452	522	576	631	676	722		
22	132	240	332	423	501	579	640	702	755	808		
23	145	264	365	466	553	640	706	772	834	895		
24	158	287	398	508	604	700	771	842	912	982		
25	173	314	436	558	664	769	850	932	1010	1087		
26	188	341	474	607	722	838	930	1021	1106	1192		
27	202	368	512	656	782	909	1008	1106	1201	1296		
28	217	395	550	706	843	980	1086	1192	1296	1401	1493	1585
29	234	426	595	764	912	1061	1176	1290	1406	1522	1629	1736
30	252	458	640	822	982	1142	1265	1388	1516	1644	1765	1886
31	271	492	688	884	1058	1233	1368	1504	1639	1774	1908	2042
32	289	526	736	947	1136	1324	1472	1620	1762	1903	2051	2199
33	308	560	784	1009	1210	1412	1571	1730	1882	2034	2196	2358
34	326	593	832	1071	1286	1501	1670	1839	2002	2164	2340	2516
35	347	631	887	1143	1374	1604	1786	1968	2144	2320	2504	2688
36	368	669	942	1215	1461	1707	1902	2096	2286	2475	2668	2860
37	389	707	996	1286	1549	1812	2018	2224	2428	2633	2836	3039
38	410	745	1050	1356	1637	1918	2136	2353	2572	2791	3004	3218
39	433	788	1113	1438	1735	2032	2266	2500	2728	2955	3182	3410
40	457	831	1175	1519	1832	2145	2396	2648	2884	3119	3361	3603

FC 83 Scribner Rule

FC 84 Scribner Rule

FORM CLASS 84 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	19	34	44	55	62	68						
11	25	45	60	74	84	94						
12	31	56	74	92	106	119	126	134				
13	39	70	93	116	134	151	162	173				
14	46	83	111	139	161	183	198	212				
15	53	97	130	164	191	218	238	256				
16	61	111	150	189	221	253	277	301				
17	70	128	174	220	258	296	325	354				
18	80	146	199	252	296	340	374	407				
19	91	166	226	287	338	390	428	467				
20	102	185	254	322	380	439	483	527	561	595		
21	114	207	284	362	428	494	544	595	636	678		
22	124	226	316	402	475	548	606	663	712	761		
23	140	254	350	446	529	612	674	736	794	852		
24	153	278	384	491	584	676	743	810	877	944		
25	166	302	419	536	637	738	815	892	966	1040		
26	180	327	454	581	690	800	887	974	1055	1136		
27	196	356	495	634	755	876	970	1064	1155	1246		
28	212	386	537	688	820	951	1053	1155	1256	1357	1446	1535
29	229	417	581	745	888	1032	1143	1254	1366	1477	1580	1684
30	246	448	625	802	958	1113	1232	1352	1474	1597	1715	1833
31	265	481	672	863	1032	1202	1334	1466	1596	1726	1857	1988
32	283	514	719	924	1107	1290	1435	1580	1717	1854	1998	2142
33	301	548	769	990	1187	1384	1539	1694	1842	1991	2150	2308
34	321	583	819	1055	1266	1478	1644	1809	1968	2128	2300	2473
35	341	620	871	1122	1348	1547	1752	1930	2102	2274	2453	2632
36	361	656	923	1190	1430	1671	1861	2051	2235	2419	2605	2791
37	383	696	980	1264	1523	1782	1984	2186	2386	2585	2783	2981
38	405	736	1037	1338	1615	1892	2106	2320	2536	2751	2961	3171
39	428	778	1098	1418	1711	2004	2235	2466	2690	2914	3138	3361
40	451	820	1159	1498	1806	2115	2364	2612	2844	3077	3314	3551

FC 84 Scribner Rule

FC 85 Scribner Rule

FORM CLASS 85 Scribner log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	20	36	47	58	65	72						
11	26	47	62	76	87	98						
12	32	58	76	95	109	123	131	139				
13	39	71	94	118	137	156	167	178				
14	46	84	113	142	165	188	203	218				
15	55	100	134	169	198	226	246	266				
16	63	115	156	196	230	264	288	313				
17	73	132	180	228	268	308	337	366				
18	83	150	205	260	306	351	386	420				
19	94	170	233	296	348	400	440	481				
20	104	189	260	331	390	450	496	542	578	615		
21	117	212	292	371	438	506	559	612	656	699		
22	129	234	322	411	487	563	622	681	732	783		
23	142	259	358	456	541	626	691	756	816	876		
24	156	284	393	502	596	690	760	831	900	969		
25	171	310	430	551	655	759	840	920	996	1072		
26	185	337	468	600	714	828	918	1008	1092	1175		
27	202	367	510	654	779	904	1002	1100	1194	1288		
28	218	397	552	708	844	981	1086	1192	1297	1402	1494	1587
29	235	428	597	766	914	1063	1178	1292	1408	1524	1631	1738
30	253	460	642	825	985	1145	1268	1392	1519	1646	1768	1890
31	271	493	690	886	1060	1235	1372	1508	1641	1774	1910	2046
32	289	526	737	948	1136	1325	1474	1623	1762	1902	2052	2201
33	309	562	788	1014	1216	1419	1580	1740	1892	2043	2206	2370
34	328	597	838	1079	1296	1513	1684	1856	2020	2184	2361	2538
35	350	636	894	1152	1384	1617	1800	1984	2162	2340	2526	2711
36	371	674	949	1224	1472	1721	1917	2113	2304	2495	2690	2884
37	393	715	1008	1300	1567	1834	2042	2251	2458	2666	2871	3076
38	416	756	1066	1376	1661	1946	2168	2389	2612	2836	3052	3269
39	439	798	1128	1458	1759	2060	2298	2537	2768	3000	3232	3463
40	463	841	1190	1539	1856	2174	2430	2685	2925	3165	3411	3657

FC 85 Scribner Rule

FC 75 Doyle Rule

FORM CLASS 75 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	7	12	14	16								
11	10	18	22	26								
12	14	25	31	37	40	44						
13	19	34	42	51	56	62						
14	23	42	54	65	72	80	84	87				
15	29	53	68	83	94	104	110	117				
16	35	64	82	101	115	129	138	147				
17	42	77	100	124	142	159	170	182				
18	50	90	118	146	168	189	203	217				
19	58	106	140	173	200	226	243	260				
20	67	121	160	200	231	262	282	303	319	335		
21	76	138	184	231	268	304	329	354	374	395		
22	86	156	209	262	304	346	376	406	430	455		
23	97	176	237	298	347	396	429	462	493	524		
24	108	196	264	333	389	445	481	517	554	592		
25	120	218	295	372	436	499	542	586	628	670		
26	132	240	326	412	482	553	604	654	702	749		
27	145	264	360	456	535	614	670	726	781	836		
28	159	289	394	499	588	676	738	799	862	924	980	1036
29	174	316	432	547	644	742	810	8778	949	1020	1087	1154
30	188	342	468	595	701	807	882	956	1036	1117	1195	1273
31	204	371	509	647	764	882	966	1051	1136	1220	1306	1397
32	220	400	550	699	828	958	1052	1146	1235	1324	1422	1521
33	237	431	594	756	897	1038	1140	1242	1340	1439	1549	1659
34	254	462	637	812	964	1117	1228	1339	1446	1554	1676	1797
35	273	496	685	874	1040	1206	1326	1447	1564	1682	1810	1938
36	291	529	733	937	1116	1294	1424	1555	1683	1811	1944	2078
37	310	564	783	1002	1196	1390	1530	1671	1812	1953	2096	2238
38	330	600	834	1067	1276	1486	1636	1787	1941	2095	2246	2397
39	351	638	888	1138	1361	1584	1748	1913	2073	2233	2396	2558
40	372	676	943	1210	1446	1683	1861	2039	2205	2371	2546	2720

FC 75 Doyle Rule

FC 76 Doyle Rule

FORM CLASS 76 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	7	13	16	18	19	20						
11	11	20	24	28	30	32						
12	14	26	32	38	42	45						
13	19	35	44	53	58	64						
14	24	44	56	68	76	84	88	92				
15	31	56	72	88	99	110	117	124				
16	37	67	87	107	122	137	146	156				
17	44	80	105	130	149	168	180	193				
18	52	94	124	153	176	200	215	230				
19	61	110	145	180	208	236	254	273				
20	69	125	166	208	240	273	294	316	334	351		
21	79	143	192	240	278	316	342	368	390	412		
22	89	161	216	271	315	359	390	421	448	474		
23	100	182	245	308	359	410	444	478	511	544		
24	111	202	273	344	402	460	498	535	575	615		
25	124	226	306	387	453	519	564	610	655	700		
26	138	250	340	430	504	578	631	684	735	786		
27	151	274	374	474	557	640	699	758	816	875		
28	164	299	408	518	610	702	767	832	898	964	1022	1081
29	179	326	446	566	668	770	841	912	988	1062	1132	1202
30	194	353	484	615	726	837	915	993	1076	1160	1241	1322
31	210	382	525	668	791	914	1002	1090	1178	1266	1358	1450
32	227	412	567	722	856	990	1088	1186	1280	1373	1475	1577
33	244	444	612	779	925	1071	1178	1284	1387	1490	1604	1718
34	261	475	656	836	994	1152	1268	1383	1494	1606	1732	1858
35	282	512	708	904	1076	1248	1374	1501	1624	1746	1879	2012
36	301	548	760	972	1158	1344	1482	1619	1753	1887	2026	2166
37	321	584	811	1038	1240	1442	1589	1736	1884	2032	2180	2328
38	341	620	862	1104	1322	1540	1697	1854	2016	2177	2334	2491
39	362	658	917	1176	1408	1640	1811	1982	2150	2317	2486	2656
40	383	697	973	1249	1495	1741	1926	2111	2284	2457	2639	2821

FC 76 Doyle Rule

FC 77 Doyle Rule

FORM CLASS 77 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	8	14	16	19	20	21						
11	11	20	25	30	32	34						
12	15	27	34	40	44	48						
13	20	36	46	56	62	68						
14	25	46	59	72	80	89	94	98				
15	32	58	74	91	103	115	122	130				
16	38	69	90	110	126	141	151	161				
17	46	84	110	135	155	175	188	202				
18	54	98	129	160	184	209	226	242				
19	63	114	151	188	218	247	266	286				
20	72	130	173	216	250	285	308	331	349	367		
21	81	148	198	248	288	329	356	384	407	430		
22	91	166	223	280	326	372	404	437	464	492		
23	103	188	254	320	373	426	463	500	535	570		
24	116	210	284	359	420	481	522	563	605	647		
25	128	233	316	400	469	538	586	634	681	728		
26	141	256	348	441	518	594	650	705	758	810		
27	156	283	386	490	576	662	724	786	847	908		
28	171	310	424	538	634	730	799	868	936	1005	1066	1128
29	186	338	463	588	693	798	874	950	1028	1106	1179	1252
30	201	365	501	637	752	867	950	1032	1119	1206	1290	1375
31	217	394	542	690	818	945	1038	1130	1222	1313	1408	1504
32	233	424	584	744	884	1023	1125	1227	1324	1420	1526	1633
33	252	458	632	806	959	1112	1223	1334	1441	1548	1667	1786
34	271	493	681	869	1034	1200	1321	1442	1560	1677	1808	1940
35	290	528	731	934	1112	1291	1422	1554	1682	1811	1648	2086
36	309	562	780	999	1190	1382	1524	1667	1806	1945	2088	2232
37	331	601	836	1070	1279	1488	1642	1796	1949	2102	2256	2410
38	352	640	891	1142	1368	1594	1759	1924	2092	2260	2424	2588
39	373	679	948	1216	1456	1696	1875	2054	2228	2403	2579	2755
40	395	718	1004	1289	1544	1798	1991	2184	2365	2546	2734	2922

FC 77 Doyle Rule

FC 78 Doyle Rule

FORM CLASS 78 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	8	14	17	20	21	22						
11	12	22	27	32	35	38						
12	16	29	36	43	48	53	54	56				
13	21	38	48	59	66	73	76	80				
14	26	48	62	75	84	93	98	103				
15	33	60	78	96	108	121	128	136				
16	40	72	94	116	132	149	160	170				
17	47	86	113	140	161	182	196	209				
18	55	100	132	164	190	215	232	248				
19	65	118	156	194	225	256	276	297				
20	74	135	180	225	261	297	322	346	364	383		
21	85	154	207	260	302	344	374	404	428	452		
22	96	174	234	295	344	392	427	462	492	521		
23	107	195	264	332	388	444	483	522	558	594		
24	119	216	293	370	433	496	539	582	625	668		
25	133	241	328	414	486	558	609	660	709	758		
26	146	266	362	459	539	619	678	737	793	849		
27	161	292	398	505	594	684	749	814	877	940		
28	174	317	434	551	650	750	820	890	961	1032	1096	1161
29	190	346	475	604	714	824	902	980	1061	1142	1218	1294
30	207	376	517	658	778	898	984	1069	1160	1251	1339	1427
31	224	408	562	717	850	983	1080	1176	1273	1370	1470	1570
32	243	441	608	776	922	1068	1176	1283	1386	1488	1600	1712
33	261	474	654	835	994	1152	1268	1385	1497	1609	1734	1858
34	278	506	700	894	1064	1235	1361	1487	1608	1730	1866	2003
35	299	544	754	964	1149	1334	1472	1610	1743	1876	2020	2163
36	320	581	308	1035	1234	1434	1583	1732	1878	2023	2173	2323
37	340	618	860	1102	1318	1534	1694	1854	2013	2172	2332	2492
38	360	655	912	1170	1402	1635	1805	1975	2148	2322	2491	2660
39	384	698	974	1250	1498	1746	1932	2118	2298	2479	2662	2844
40	407	740	1035	1330	1594	1858	2059	2260	2448	2636	2832	3027

FC 78 Doyle Rule

FC 79 Doyle Rule

FORM CLASS 79 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	8	15	18	21	22	24						
11	12	22	28	33	36	40						
12	17	30	38	45	50	55	57	59				
13	22	40	51	62	70	77	80	84				
14	28	50	64	79	89	99	104	110				
15	34	62	80	99	112	126	135	144				
16	41	74	96	119	136	153	165	177				
17	49	89	117	145	166	188	203	218				
18	57	104	138	171	198	224	242	260				
19	67	122	162	202	234	266	288	310				
20	76	139	186	233	270	308	334	359	380	400		
21	88	160	214	269	314	358	389	420	445	470		
22	99	180	242	305	356	407	444	480	510	541		
23	111	202	274	346	405	464	505	546	584	622		
24	124	225	306	386	453	520	566	611	656	702		
25	136	248	338	428	503	578	631	684	736	788		
26	150	272	372	471	554	636	697	758	816	873		
27	165	300	410	521	614	707	774	842	908	974		
28	180	328	450	571	674	778	852	927	1002	1076	1142	1209
29	197	358	492	626	740	854	936	1018	1102	1187	1266	1346
30	213	388	534	680	804	929	1018	1108	1203	1298	1390	1482
31	232	421	580	740	878	1016	1116	1217	1318	1419	1522	1626
32	250	454	627	800	951	1102	1214	1326	1433	1540	1656	1771
33	269	489	676	864	1029	1194	1316	1438	1555	1672	1801	1930
34	288	524	726	928	1106	1285	1417	1549	1676	1804	1947	2090
35	308	560	778	995	1186	1378	1522	1666	1804	1943	2092	2242
36	327	595	828	1062	1267	1472	1627	1782	1932	2082	2238	2393
37	350	636	886	1136	1359	1582	1748	1914	2080	2245	2411	2577
38	372	676	943	1210	1451	1692	1870	2047	2228	2408	2584	2761
39	395	719	1005	1291	1548	1805	1998	2191	2379	2567	2758	2948
40	419	762	1067	1372	1645	1918	2126	2335	2530	2726	2930	3134

FC 79 Doyle Rule

FC 80 Doyle Rule

FORM CLASS 80 **Doyle log rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	9	16	20	23	24	26						
11	13	24	30	35	38	42						
12	17	31	39	47	52	57	60	62				
13	23	42	53	64	72	80	84	88				
14	29	52	67	82	93	104	109	114				
15	35	64	84	104	118	132	141	150				
16	42	77	101	125	143	161	174	186				
17	51	92	122	152	175	198	214	230				
18	59	108	144	179	206	234	254	273				
19	69	126	168	210	244	278	301	324				
20	79	144	193	242	282	321	348	374	396	417		
21	90	164	221	278	324	370	403	436	462	489		
22	102	185	250	315	368	420	458	497	529	561		
23	114	208	282	356	417	478	521	564	604	643		
24	127	231	314	397	466	536	583	630	678	725		
25	141	256	350	443	522	600	655	710	764	818		
26	155	282	386	489	576	663	727	791	852	912		
27	171	310	425	540	638	735	806	877	946	1015		
28	186	339	466	592	700	807	885	963	1040	1118	1188	1258
29	204	370	509	648	766	884	970	1056	1144	1232	1315	1398
30	220	400	552	703	832	961	1055	1149	1248	1346	1442	1537
31	239	434	599	764	906	1049	1154	1260	1364	1469	1576	1684
32	257	467	646	824	980	1137	1254	1370	1481	1592	1712	1831
33	276	502	696	889	1060	1230	1356	1483	1604	1726	1860	1994
34	296	538	746	954	1138	1322	1459	1596	1728	1861	2008	2156
35	317	576	801	1026	1225	1424	1573	1722	1867	2012	2167	2322
36	338	615	857	1099	1312	1526	1688	1849	2006	2163	2326	2488
37	361	656	915	1174	1406	1638	1811	1984	2157	2330	2502	2675
38	383	697	973	1249	1499	1749	1934	2119	2308	2496	2679	2862
39	407	740	1036	1332	1598	1864	2065	2266	2462	2658	2855	3052
40	431	784	1099	1414	1696	1979	2196	2413	2616	2819	3030	3241

FC 80 Doyle Rule

FC 81 Doyle Rule

FORM CLASS 81 **Doyle log rule**

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	9	17	20	24	26	27						
11	13	24	30	36	40	43						
12	18	32	40	49	54	59	62	65				
13	23	42	54	66	74	82	87	92				
14	29	53	68	84	95	106	112	118				
15	37	67	88	108	123	138	148	158				
16	45	81	106	131	151	171	184	197				
17	53	96	127	158	183	208	224	241				
18	62	112	149	186	216	245	265	285				
19	72	130	174	218	254	289	314	338				
20	82	149	200	251	292	333	362	391	412	434		
21	94	170	229	288	336	384	418	452	480	508		
22	105	190	258	325	380	434	474	514	548	582		
23	118	214	290	367	430	493	538	582	624	665		
24	158	287	323	409	480	552	601	650	699	748		
25	145	264	361	458	539	620	678	737	794	850		
26	161	292	400	508	598	689	756	824	888	953		
27	177	321	440	560	661	762	837	912	985	1058		
28	193	350	481	612	724	836	918	1000	1081	1162	1235	1308
29	210	381	524	668	791	914	1004	1094	1186	1278	1364	1450
30	227	412	568	725	859	993	1091	1189	1292	1395	1494	1593
31	245	446	616	787	934	1082	1192	1302	1411	1520	1632	1744
32	264	480	664	849	1010	1172	1293	1414	1529	1644	1769	1894
33	284	516	715	914	1090	1266	1398	1530	1656	1781	1920	2058
34	304	552	766	980	1170	1360	1502	1645	1782	1918	2070	2222
35	327	594	826	1058	1264	1470	1626	1782	1932	2082	2242	2403
36	349	635	886	1137	1359	1581	1750	1919	2082	2246	2415	2584
37	372	676	944	1213	1454	1694	1875	2056	2236	2416	2416	2775
38	395	718	1004	1289	1548	1808	2000	2192	2388	2585	2585	2966
39	419	762	1068	1373	1648	1924	2133	2342	2546	2750	2750	3159
40	444	807	1132	1457	1749	2041	2266	2491	2702	2914	2914	3352

FC 81 Doyle Rule

FC 82 Doyle Rule

FORM CLASS 82 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	10	18	22	26	28	30						
11	14	26	32	39	42	46						
12	19	34	43	52	58	63	66	69				
13	25	45	58	71	80	88	93	98				
14	31	56	73	90	102	113	120	127				
15	39	70	91	112	128	144	154	165				
16	46	83	109	135	156	176	190	203				
17	55	100	132	164	190	216	234	251				
18	64	117	156	194	226	257	278	299				
19	75	136	182	227	264	301	326	352				
20	85	154	207	260	302	345	376	406	430	453		
21	96	175	236	298	348	397	434	470	499	528		
22	108	196	266	335	392	449	491	533	568	602		
23	122	221	300	380	446	512	559	606	650	693		
24	135	246	336	426	501	576	628	680	732	784		
25	150	272	373	474	558	642	703	764	822	881		
26	164	299	410	521	614	708	778	848	913	978		
27	182	330	454	577	682	787	865	943	1018	1093		
28	199	361	497	633	750	866	952	1038	1123	1208	1284	1360
29	216	392	541	690	818	946	1040	1134	1230	1326	1416	1505
30	233	424	586	748	887	1026	1128	1230	1337	1444	1547	1650
31	252	458	634	810	963	1116	1230	1344	1458	1571	1686	1802
32	271	493	683	873	1040	1207	1333	1459	1578	1698	1826	1955
33	293	532	738	944	1126	1309	1446	1584	1716	1847	1990	2134
34	314	571	794	1016	1214	1411	1560	1709	1852	1996	2154	2313
35	336	610	850	1090	1303	1516	1678	1840	1996	2152	2318	2484
36	358	650	908	1165	1394	1622	1796	1970	2140	2309	2482	2656
37	382	695	972	1248	1496	1744	1931	2118	2305	2492	2678	2863
38	407	740	1035	1330	1598	1867	2067	2267	2472	2676	2873	3070
39	431	784	1100	1415	1700	1985	2202	2420	2632	2843	3055	3267
40	456	829	1164	1500	1802	2103	2338	2572	2791	3010	3237	3464

FC 82 Doyle Rule

FC 83 Doyle Rule

FORM CLASS 83 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	10	18	22	26	28	31						
11	15	27	34	40	45	50						
12	20	36	46	55	62	68	72	75				
13	26	47	60	74	83	92	98	103				
14	32	58	76	93	105	117	124	131				
15	40	72	94	117	134	150	161	172				
16	47	86	114	141	162	184	198	213				
17	56	102	136	170	196	222	240	259				
18	65	119	158	198	230	261	283	305				
19	76	139	186	234	272	310	336	363				
20	87	159	214	269	314	359	390	421	446	471		
21	100	182	246	310	362	414	452	490	522	553		
22	112	204	277	350	410	470	515	560	598	635		
23	125	228	311	394	463	532	581	630	676	722		
24	139	253	346	438	516	594	648	701	755	809		
25	155	282	386	490	578	665	728	792	853	914		
26	171	310	426	541	638	736	809	882	951	1020		
27	187	340	467	594	703	812	892	973	1051	1129		
28	203	369	508	648	768	887	976	1064	1151	1238	1317	1396
29	222	403	556	710	842	974	1071	1168	1267	1366	1459	1552
30	240	437	604	772	916	1060	1166	1273	1384	1495	1602	1709
31	261	474	657	840	999	1158	1278	1397	1515	1633	1754	1876
32	281	511	709	907	1081	1255	1388	1521	1646	1771	1906	2042
33	301	548	762	976	1164	1352	1496	1640	1777	1914	2064	2213
34	322	586	815	1044	1247	1450	1605	1760	1908	2056	2220	2384
35	345	628	876	1124	1344	1564	1732	1901	2063	2225	2398	2570
36	369	671	938	1205	1442	1678	1860	2042	2218	2394	2576	2757
37	393	714	998	1283	1539	1795	1989	2183	2376	2569	2762	2954
38	416	756	1058	1361	1636	1912	2118	2324	2534	2744	2948	3152
39	442	804	1128	1453	1746	2040	2264	2488	2707	2926	3146	3365
40	469	853	1199	1545	1856	2168	2410	2652	2880	3108	3343	3578

FC 83 Doyle Rule

FC 84 Doyle Rule

FORM CLASS 84 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	10	19	24	28	30	32						
11	15	28	35	42	47	52						
12	20	37	47	57	64	71	74	78				
13	27	49	64	78	88	98	104	110				
14	34	61	80	98	112	125	133	141				
15	41	74	98	121	138	156	168	180				
16	48	88	116	144	166	188	204	219				
17	58	106	140	175	202	230	250	270				
18	68	123	164	206	239	272	296	320				
19	79	144	193	242	282	322	350	379				
20	90	164	221	278	325	372	405	438	464	490		
21	103	187	254	320	374	428	468	508	541	574		
22	116	210	286	361	423	485	532	579	618	657		
23	130	236	322	408	480	552	604	656	704	752		
24	144	262	358	455	536	618	675	732	790	847		
25	160	290	397	504	595	686	753	820	884	948		
26	174	317	436	554	654	755	831	907	978	1049		
27	191	348	480	612	724	836	920	1004	1085	1166		
28	209	380	524	669	794	918	1010	1101	1192	1284	1366	1448
29	228	414	573	732	869	1006	1107	1208	1312	1415	1512	1608
30	247	449	622	795	944	1094	1204	1314	1430	1546	1657	1768
31	267	486	675	864	1028	1193	1316	1440	1563	1686	1812	1937
32	288	524	728	932	1112	1292	1429	1556	1696	1827	1966	2106
33	310	564	785	1006	1202	1398	1547	1696	1838	1981	2136	2292
34	333	605	842	1080	1292	1503	1664	1826	1980	2135	2306	2478
35	355	646	902	1157	1384	1612	1786	1960	2128	2297	2476	2656
36	377	686	960	1234	1478	1721	1908	2095	2277	2459	2646	2833
37	403	732	1025	1318	1582	1847	2048	2248	2448	2648	2847	3046
38	428	778	1090	1403	1688	1973	2188	2402	2620	2838	3048	3259
39	455	827	1162	1496	1799	2102	2335	2568	2795	3022	3249	3476
40	482	876	1232	1589	1910	2232	2484	2735	2971	3207	3450	3694

FC 84 Doyle Rule

Mesavage & Girard's

FC 85 Doyle Rule

FORM CLASS 85 Doyle log rule

VOLUME (board feet) BY NUMBER OF USABLE 16-FOOT LOGS

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	11	20	25	30	32	35						
11	16	29	36	44	49	54						
12	21	38	48	59	66	74	78	81				
13	28	50	65	80	90	101	106	112				
14	34	62	81	100	114	128	136	144				
15	42	77	102	126	145	164	176	188				
16	51	92	122	151	175	199	215	231				
17	61	110	146	182	212	242	262	282				
18	70	128	171	214	249	284	309	334				
19	81	148	200	251	292	334	364	394				
20	93	169	228	288	336	385	420	455	482	510		
21	106	192	261	330	386	443	484	526	560	595		
22	119	216	294	372	436	501	550	598	639	680		
23	133	242	331	420	494	568	622	676	726	776		
24	148	269	368	468	552	636	695	754	813	872		
25	164	298	410	521	616	710	779	848	915	982		
26	180	328	451	574	678	783	863	948	1018	1092		
27	198	360	496	632	749	866	954	1042	1127	1212		
28	216	392	542	691	820	949	1046	1142	1238	1333	1418	1502
29	235	427	591	755	896	1	1144	1250	1358	1466	1566	1665
30	254	462	640	819	974	1128	1242	1357	1478	1598	1713	1828
31	275	500	694	888	1058	1228	1357	1486	1614	1741	1870	2000
32	296	538	748	958	1144	1329	1472	1614	1749	1884	2028	2173
33	318	579	806	1033	1234	1436	1591	1746	1893	2040	2200	2361
34	341	620	864	1108	1326	1544	1710	1877	2037	2197	2373	2549
35	365	664	928	1191	1426	1662	1842	2023	2198	2372	2557	2742
36	389	708	991	1274	1526	1779	1974	2169	2358	2548	2742	2936
37	415	754	1057	1360	1634	1907	2116	2324	2532	2740	2947	3154
38	441	801	1124	1446	1740	2035	2258	2480	2706	2933	3152	3371
39	468	850	1195	1540	1853	2166	2408	2650	2886	3121	3356	3591
40	495	900	1267	1634	1966	2298	2558	2819	3064	3309	3560	3811

FC 85 Doyle Rule

FORM CLASS 78 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	43	48	53	62	70	78	81	89	98	105	111	117	125	132
15	51	57	62	73	83	92	96	105	115	124	131	139	148	156
16	58	65	72	84	95	106	111	122	133	143	151	160	171	180
17	67	74	82	96	109	121	127	139	153	164	173	183	196	206
18	75	84	92	107	122	136	143	156	171	184	196	207	221	233
19	85	95	104	122	139	154	162	178	194	209	222	235	251	264
20	94	105	115	135	154	171	181	199	218	234	249	263	281	296
21	105	117	129	151	172	191	203	223	244	262	279	295	315	332
22	116	130	142	167	190	211	225	247	270	290	309	328	350	368
23	127	142	156	182	208	231	246	270	296	318	339	360	384	404
24	138	154	169	198	226	251	268	294	322	346	370	392	419	441
25	151	169	186	217	248	275	295	323	353	380	407	431	460	484
26	164	184	202	236	269	299	321	352	385	414	444	470	502	528
27	178	199	218	255	291	323	347	381	417	448	480	509	543	572
28	191	213	234	274	312	347	374	410	448	482	517	548	585	616
29	206	231	253	296	338	375	404	443	485	521	560	594	634	667
30	222	248	272	318	363	403	434	476	521	560	603	639	682	718
31	238	266	292	341	389	432	467	512	560	602	648	687	733	772
32	254	284	312	365	416	462	499	547	599	644	694	735	785	826
33	271	303	332	389	443	492	532	583	638	686	739	783	836	880
34	287	320	352	412	469	521	564	619	677	728	785	831	887	934
35	305	341	375	438	500	555	601	660	722	776	838	888	948	998
36	324	362	398	465	530	589	640	702	768	826	893	946	1010	1063
37	342	383	420	491	560	622	677	742	812	873	944	1000	1068	1124
38	361	403	443	518	590	656	714	783	857	921	996	1056	1127	1186
39	382	427	468	548	625	694	756	830	908	976	1057	1120	1195	1258
40	402	450	493	577	658	731	798	876	958	1030	1116	1183	1263	1329

FORM CLASS 79 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	45	50	55	65	74	82	85	94	102	110	116	123	131	138
15	52	58	64	75	86	95	99	109	119	128	134	142	152	160
16	59	66	73	85	97	108	113	124	136	146	154	163	174	183
17	68	76	84	98	112	124	130	143	156	168	178	189	201	212
18	77	86	95	111	126	140	147	162	177	190	202	214	228	240
19	87	97	107	125	142	158	167	183	200	215	228	242	258	272
20	97	108	119	139	158	176	186	204	223	240	256	271	290	305
21	108	121	132	155	176	196	208	229	250	269	287	304	325	342
22	119	133	146	171	194	216	230	252	276	297	318	336	359	378
23	131	146	161	188	214	238	254	279	305	328	351	372	397	418
24	143	160	176	205	234	260	278	305	334	359	385	408	435	458
25	155	173	190	223	254	282	302	332	363	390	419	444	474	499
26	168	188	206	241	275	305	327	359	392	422	454	481	513	540
27	182	204	223	261	298	331	357	391	428	460	494	523	559	588
28	196	220	241	282	321	357	384	422	461	496	533	565	603	635
29	212	237	260	304	347	385	415	456	498	536	576	611	652	686
30	227	254	279	326	372	413	446	489	535	575	619	656	700	737
31	244	273	300	351	400	444	479	525	575	618	665	705	752	792
32	261	292	320	374	427	474	512	562	615	661	712	755	806	848
33	278	311	342	400	455	506	547	600	657	706	762	807	862	907
34	296	331	363	425	484	538	583	639	699	752	811	860	918	966
35	314	351	385	450	513	570	618	678	742	798	862	913	975	1026
36	331	370	406	476	542	602	654	717	785	844	913	967	1033	1087
37	351	392	431	504	574	638	694	762	833	896	969	1027	1096	1154
38	371	415	455	532	607	674	734	805	881	947	1025	1086	1159	1220
39	392	438	481	562	641	712	777	852	932	1002	1085	1150	1227	1292
40	413	461	506	593	675	750	820	899	984	1058	1147	1215	1297	1365

FORM CLASS 80 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	46	51	56	66	75	83	87	95	104	112	118	125	134	141
15	54	60	66	77	88	98	102	112	123	132	139	148	158	166
16	62	69	76	88	101	112	117	128	140	151	160	169	181	190
17	70	79	86	101	115	128	135	148	162	174	184	195	208	219
18	79	89	97	114	130	144	152	167	182	196	208	221	236	248
19	89	100	109	128	146	162	172	189	206	222	236	250	267	281
20	100	111	122	143	163	181	192	211	231	248	264	279	298	314
21	111	124	136	159	181	201	214	235	257	276	294	312	333	350
22	122	136	149	175	199	221	236	258	283	304	325	344	368	387
23	134	150	165	193	220	244	260	286	312	336	360	381	407	428
24	146	164	180	210	239	266	285	313	342	368	394	417	446	469
25	160	178	196	229	261	290	312	342	374	402	432	457	488	514
26	173	194	213	249	284	315	338	371	405	436	469	497	530	558
27	188	210	230	269	307	341	367	403	441	474	509	539	576	606
28	202	226	248	290	330	367	395	434	474	510	549	582	621	654
29	218	244	267	313	356	396	427	468	512	551	593	628	671	706
30	233	261	286	335	382	424	458	502	550	591	637	675	720	758
31	250	279	306	359	409	454	491	539	590	634	684	724	773	814
32	267	298	327	383	437	485	525	576	631	678	731	774	827	870
33	285	319	350	409	466	518	561	615	673	724	781	828	884	930
34	303	338	371	435	495	550	597	655	716	770	831	880	940	989
35	322	360	395	462	527	585	636	697	763	820	886	939	1002	1055
36	341	381	419	490	558	620	674	740	809	870	942	998	1065	1121
37	361	403	443	518	590	656	715	784	857	922	998	1057	1129	1188
38	381	426	468	547	624	693	755	828	906	974	1055	1118	1193	1256
39	403	450	494	578	659	732	799	876	959	1031	1117	1184	1264	1330
40	424	474	520	608	693	770	842	923	1010	1086	1179	1249	1333	1403

FORM CLASS 82 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	48	54	59	70	79	88	92	101	111	119	126	134	143	150
15	56	63	69	81	92	102	107	117	128	138	147	156	166	175
16	64	72	79	92	105	117	122	134	147	158	168	178	190	200
17	74	83	91	107	122	135	143	156	171	184	195	206	220	232
18	84	94	103	121	138	153	162	178	194	209	223	236	252	265
19	95	106	116	136	155	172	182	200	219	235	250	265	283	298
20	105	117	128	150	171	190	202	222	243	261	279	295	315	332
21	116	130	142	167	190	211	225	247	270	290	311	329	352	370
22	128	143	157	183	209	232	248	272	298	320	343	363	388	408
23	141	157	173	202	230	256	274	301	329	354	380	402	429	452
24	155	173	190	222	253	281	301	331	362	389	417	442	472	497
25	168	188	207	242	275	306	329	360	394	424	455	482	515	542
26	182	204	223	261	298	331	357	391	428	460	494	523	559	588
27	198	221	243	284	324	360	388	425	465	500	538	570	608	640
28	213	239	262	307	349	388	419	459	502	540	582	617	658	693
29	230	257	282	330	376	418	451	495	541	582	627	665	710	747
30	246	275	302	353	402	447	484	530	580	624	673	713	761	801
31	263	294	323	378	430	478	518	568	621	668	721	764	815	858
32	280	313	344	402	458	509	552	605	662	712	769	814	869	915
33	299	335	367	430	490	544	591	648	709	762	823	872	931	980
34	319	357	392	458	522	580	630	691	756	813	879	931	994	1046
35	339	379	416	487	554	616	670	735	804	865	936	991	1058	1114
36	358	400	439	514	586	651	710	779	852	916	992	1051	1122	1181
37	380	425	466	546	622	691	754	827	905	973	1054	1117	1192	1255
38	402	450	493	577	658	731	798	876	958	1030	1116	1183	1263	1329
39	424	474	520	608	693	770	827	907	992	1067	1179	1250	1334	1404
40	446	498	547	640	729	810	887	972	1064	1144	1242	1316	1405	1479

FORM CLASS 78 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	26	30	32	38	43	48	48	53	58	62	63	67	71	75
15	33	37	41	47	54	60	60	66	73	78	81	85	91	96
16	40	44	49	57	65	72	73	80	87	94	97	103	110	116
17	47	53	58	68	77	86	88	96	105	113	118	125	133	140
18	55	62	68	79	90	100	102	112	123	132	138	146	156	164
19	65	73	80	93	106	118	121	133	145	156	163	173	184	194
20	74	83	91	107	122	135	140	153	167	180	189	200	214	225
21	85	95	104	122	139	154	160	176	193	207	218	231	247	260
22	96	107	117	137	157	174	181	199	218	234	248	263	280	295
23	107	120	132	154	176	195	205	224	246	264	279	295	315	332
24	119	133	146	171	194	216	227	249	272	293	311	329	352	370
25	133	148	163	190	217	241	254	279	305	328	348	368	393	414
26	146	164	180	210	239	266	281	308	337	362	386	409	436	459
27	161	180	197	231	263	292	308	338	370	398	424	449	480	505
28	174	195	214	250	285	317	336	369	404	434	463	490	523	551
29	190	213	234	273	311	346	368	404	442	475	507	538	574	604
30	207	231	254	297	338	376	401	439	481	517	553	586	625	658
31	224	251	275	322	367	408	436	478	523	562	602	638	681	717
32	243	271	298	348	397	441	471	517	565	608	652	691	737	776
33	261	292	320	374	427	474	507	556	608	654	701	743	793	835
34	278	311	342	400	455	506	543	595	651	700	751	796	849	894
35	299	335	367	430	490	544	584	641	701	754	810	858	916	964
36	320	357	392	459	523	581	239	262	286	308	869	921	983	1035
37	340	380	417	488	556	618	667	731	800	860	926	981	1047	1102
38	360	403	442	517	590	655	707	775	848	912	983	1041	1112	1170
39	384	429	471	551	628	698	755	828	906	974	1050	1113	1188	1250
40	407	455	500	585	666	740	802	880	963	1035	1117	1184	1264	1330

FORM CLASS 79 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	28	31	34	40	45	50	50	54	60	64	66	70	75	79
15	34	38	42	49	56	62	62	68	74	80	83	88	94	99
16	41	46	50	58	67	74	74	82	89	96	100	106	113	119
17	49	55	60	70	80	89	91	99	109	117	122	129	138	145
18	57	64	70	82	94	104	107	117	128	138	144	152	162	171
19	67	75	82	96	110	122	126	138	151	162	170	180	192	202
20	76	85	94	110	125	139	144	158	173	186	196	207	221	233
21	88	98	108	126	144	160	166	182	199	214	226	239	256	269
22	99	111	122	142	162	180	188	206	225	242	256	271	290	305
23	111	124	136	160	182	202	212	233	255	274	291	308	329	346
24	124	138	152	178	203	225	237	260	285	306	324	344	367	386
25	136	153	167	196	223	248	262	287	314	338	360	381	407	428
26	150	167	184	215	245	272	288	316	346	372	396	419	447	471
27	165	185	203	237	270	300	318	349	381	410	438	464	495	521
28	180	202	221	259	295	328	349	383	419	450	480	508	542	571
29	197	220	242	283	322	358	381	418	458	492	526	557	595	626
30	213	239	262	307	349	388	414	454	497	534	571	605	646	680
31	232	259	284	333	379	421	450	493	539	580	622	659	703	740
32	250	279	306	359	409	454	486	533	583	627	672	712	760	800
33	269	301	330	386	440	489	524	575	629	676	726	769	821	864
34	288	322	354	414	472	524	563	617	675	726	780	826	882	928
35	308	344	378	442	504	560	603	661	724	778	836	886	945	995
36	327	366	402	470	536	595	642	704	770	828	892	945	1009	1062
37	350	391	429	502	572	636	687	753	824	886	954	1011	1079	1136
38	372	416	456	534	608	676	731	802	877	943	1016	1077	1150	1210
39	395	442	485	568	647	719	779	854	935	1005	1084	1149	1226	1291
40	419	469	514	602	686	762	827	907	992	1067	1152	1221	1303	1372

FORM CLASS 80 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	29	32	35	41	47	52	52	57	62	67	69	73	78	82
15	35	39	43	51	58	64	65	71	78	84	87	93	99	104
16	42	47	52	61	69	77	78	86	94	101	105	111	119	125
17	51	57	62	73	83	92	95	104	113	122	128	135	144	152
18	59	66	73	85	97	108	112	122	134	144	150	159	170	179
19	69	77	85	100	113	126	130	143	156	168	176	187	200	210
20	79	89	97	114	130	144	150	164	179	193	203	215	230	242
21	90	101	111	130	148	164	171	188	206	221	234	247	264	278
22	102	114	125	146	167	185	194	213	233	250	265	280	299	315
23	114	128	140	164	187	208	219	240	262	282	299	317	338	356
24	127	142	156	182	208	231	243	267	292	314	333	353	377	397
25	141	157	173	202	230	256	271	298	326	350	372	394	421	443
26	155	173	190	223	254	282	299	328	359	386	411	435	465	489
27	171	191	209	245	279	310	329	361	395	425	454	481	513	540
28	186	208	229	268	305	339	361	396	433	466	497	527	562	592
29	204	228	250	292	333	370	394	433	473	509	544	577	616	648
30	220	246	270	316	360	400	428	469	513	552	591	626	668	703
31	239	267	293	343	391	434	464	509	557	599	642	680	726	764
32	257	287	315	369	420	467	501	549	601	646	692	733	783	824
33	276	309	339	397	452	502	539	592	647	696	747	791	845	889
34	296	331	363	425	484	538	578	634	694	746	801	849	906	954
35	317	354	389	455	518	576	621	681	745	801	862	913	975	1026
36	338	378	415	486	554	615	664	728	797	857	923	978	1044	1099
37	361	403	443	518	590	656	709	778	851	915	986	1045	1115	1174
38	383	429	470	551	627	697	754	827	905	973	1049	1112	1187	1249
39	407	455	500	585	666	740	803	881	963	1036	1119	1185	1265	1332
40	431	482	529	619	706	784	852	934	1022	1099	1188	1258	1343	1414

FORM CLASS 82 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	31	34	38	44	50	56	57	62	68	73	76	80	86	90
15	39	43	47	55	63	70	71	77	85	91	94	100	106	112
16	46	51	56	66	75	83	84	93	101	109	113	120	128	135
17	55	62	68	79	90	100	102	112	123	132	138	146	156	164
18	64	72	79	92	105	117	121	133	145	156	163	173	184	194
19	75	84	92	107	122	136	141	155	169	182	191	202	216	227
20	85	95	104	122	139	154	160	176	193	207	218	231	247	260
21	96	108	118	138	158	175	183	201	219	236	250	265	283	298
22	108	121	132	155	176	196	206	226	247	266	281	298	318	335
23	122	136	149	175	199	221	233	255	279	300	319	338	361	380
24	135	151	166	194	221	246	260	286	312	336	358	379	405	426
25	150	167	184	215	245	272	289	317	347	373	398	422	450	474
26	164	184	202	236	269	299	318	349	381	410	438	464	495	521
27	182	203	223	261	297	330	352	386	422	454	485	514	548	577
28	199	222	244	285	325	361	385	422	462	497	532	563	601	633
29	216	241	265	310	353	392	419	460	503	541	580	614	656	690
30	233	261	286	335	382	424	454	498	545	586	628	666	711	748
31	252	282	309	362	412	458	491	539	590	634	680	721	770	810
32	271	303	333	389	444	493	529	581	635	683	733	777	829	873
33	293	327	359	420	479	532	572	627	686	738	793	840	897	944
34	314	351	385	451	514	571	615	675	738	794	853	904	965	1016
35	336	375	412	482	549	610	659	723	791	850	916	970	1036	1090
36	358	400	439	514	585	650	704	772	844	908	979	1037	1107	1165
37	382	427	469	549	626	695	753	826	904	972	1048	1111	1186	1248
38	407	455	500	585	666	740	802	880	963	1035	1117	1184	1264	1330
39	431	482	529	619	706	784	853	935	1023	1100	1189	1259	1344	1415
40	456	510	560	655	746	829	902	989	1083	1164	1260	1335	1425	1500

Pennylvania Timber Volume Tables

Board foot volume tables from Pennylvania for black cherry, hard maple and red oak are included here. These tables are excerpted from *Board-foot, Cubic-foot, and Cubic-meter Volume Tables for Commercial Forest Species of Pennsylvania* (Turner, Brian J. 1994. State College, PA: The Pennsylvania State University. 46p.). These are formula based tables resulting from a regression of data taken from well-formed sample trees. In general, the volumes reported in these tables for the predominant range of merchantable sizes are significantly lower than those that would result from using Mesavage and Girard tables for the average form class for each species. An experienced user can best determine which set of tables is most applicable for a given measurement situation.

People working in Pennsylvania are strongly urged to obtain a complete copy of these helpful and inexpensive volume tables from Penn State Cooperative Extension.

PENNSYLVANIA BLACK CHERRY (Use for Well-Formed Trees)

Board Foot Volumes in International 1/4 Rule

Merchantable Height in 16-Foot Bolts Above Stump Height

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
8	26	34	43	51	60	68	77	86	94				
9	28	39	50	61	72	82	93	104	115				
10	31	44	58	71	85	98	111	125	138				
11	34	50	67	83	99	115	131	148	164	180	196		
12	38	57	76	96	115	134	153	173	192	211	231		
13	41	64	87	109	132	155	177	200	223	245	268		
14	45	72	98	124	151	177	203	229	256	282	308		
15	50	80	110	140	170	201	231	261	291	321	351		
16		89	123	157	192	226	260	295	329	363	397	432	466
17		98	137	176	214	253	292	330	369	408	447	485	524
18		108	152	195	238	282	325	369	412	455	499	542	586
19		119	167	215	264	312	360	409	457	506	554	602	651
20		130	183	237	291	344	398	451	505	558	612	666	719
21			200	260	319	378	437	496	555	614	673	732	791
22			218	283	348	413	478	543	607	672	737	802	867
23			237	308	379	450	521	592	662	733	804	875	946
24			257	334	411	488	566	643	720	797	874	951	1029
25			277	361	445	529	612	696	780	864	947	1031	1115
26				389	480	570	661	752	842	933	1023	1114	1204
27				419	516	614	712	809	907	1005	1102	1200	1298
28				449	554	659	764	869	974	1079	1184	1289	1394
29				481	593	706	818	931	1044	1156	1269	1382	1494
30				513	634	754	875	995	1116	1236	1357	1478	1598
31				547	676	804	933	1062	1190	1319	1448	1577	1705
32				582	719	856	993	1130	1267	1405	1542	1679	1816
33				617	763	909	1055	1201	1347	1493	1639	1785	1930
34				654	809	964	1119	1274	1429	1584	1738	1893	2048
35				693	857	1021	1185	1349	1513	1677	1841	2005	2163
36				732	905	1079	1253	1426	1600	1773	1947	2121	2294

Pennsylvania
BLACK CHERRY

PENNSYLVANIA HARD MAPLE (Use for Well-Formed Trees)

Board Foot Volumes in International 1/4 Rule

Merchantable Height in 16-Foot Bolts Above Stump Height

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
8	17	27	36	46	56	65	75	85	94				
9	20	32	44	57	69	81	93	105	118				
10	23	38	53	68	84	99	114	129	144				
11	27	45	63	82	100	118	136	154	173	191	209		
12	31	52	74	96	118	139	161	183	204	226	248		
13	35	60	86	111	137	162	188	213	239	264	290		
14	39	69	99	128	158	187	217	246	276	305	335		
15	44	78	112	146	180	214	248	282	316	350	384		
16		88	127	165	204	243	284	320	358	397	436	474	513
17		99	142	186	230	273	317	360	404	447	491	535	578
18		110	159	208	257	305	354	403	452	501	550	599	647
19		122	176	231	285	340	394	449	503	557	612	666	721
20		134	195	255	315	376	436	496	557	617	677	738	798
21			214	280	347	413	480	547	613	680	746	813	879
22			234	307	380	453	526	599	672	745	818	891	964
23			255	335	415	495	575	654	734	814	894	973	1053
24			278	364	451	538	625	712	799	886	972	1059	1146
25			301	395	489	583	678	772	866	960	1055	1149	1243
26				427	529	630	732	834	936	1038	1140	1242	1344
27				460	569	679	789	899	1009	1119	1229	1339	1449
28				494	612	730	848	967	1085	1203	1321	1440	1558
29				529	656	783	910	1037	1163	1290	1417	1544	1671
30				566	702	837	973	1109	1245	1380	1516	1652	1787
31				604	749	894	1039	1184	1328	1473	1618	1763	1908
32				643	797	952	1106	1261	1415	1570	1724	1878	2033
33				683	848	1012	1176	1340	1505	1669	1833	1997	2161
34				725	899	1074	1248	1422	1597	1771	1945	2120	2294
35				768	953	1137	1322	1507	1692	1876	2061	2246	2431
36				812	1008	1203	1398	1594	1789	1985	2180	2376	2571

Pennsylvania
HARD MAPLE

PENNSYLVANIA NORTHERN RED OAK (Use for Well-Formed Trees)

Board Foot Volumes in International 1/4 Rule

Merchantable Height in 16-Foot Bolts Above Stump Height

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
8	15	25	35	45	54	64	74	84	94				
9	18	30	43	55	68	80	93	105	118				
10	21	37	52	68	83	98	114	129	145				
11	25	44	62	81	100	118	137	156	174	193	212		
12	29	51	73	96	118	140	162	184	207	229	251		
13	33	59	85	111	138	164	190	216	242	268	294		
14	38	68	98	129	159	189	219	250	280	310	340		
15	43	78	112	147	182	217	251	286	321	355	390		
16		88	127	167	203	246	285	325	364	404	443	483	523
17		99	143	188	232	277	322	366	411	456	500	545	589
18		110	160	210	260	310	360	410	460	510	560	610	660
19		122	178	234	289	345	401	457	512	568	624	680	735
20		135	197	258	320	382	444	505	567	629	691	752	814
21			216	285	353	421	489	557	625	693	761	829	897
22			237	312	387	461	536	611	686	760	835	910	984
23			259	341	422	504	586	667	749	831	912	994	1076
24			282	371	459	548	637	726	815	904	993	1082	1171
25			305	402	498	595	691	788	884	981	1077	1174	1270
26				434	539	643	747	852	956	1060	1165	1269	1373
27				468	580	693	806	918	1031	1143	1256	1368	1481
28				503	624	745	866	987	1108	1229	1350	1471	1592
29				539	669	799	929	1059	1188	1318	1448	1578	1708
30				577	716	855	994	1133	1271	1410	1549	1688	1827
31				616	764	912	1061	1209	1357	1506	1654	1802	1951
32				656	814	972	1130	1288	1446	1604	1762	1920	2078
33				697	865	1033	1201	1370	1538	1706	1874	2042	2210
34				740	918	1097	1275	1454	1632	1810	1989	2167	2346
35				784	973	1162	1351	1540	1729	1918	2107	2297	2486
36				829	1029	1229	1429	1629	1829	2029	2229	2429	2630

Pennsylvania
NORTHERN RED OAK

Northern Conifer Tables

The following tables are intended for use with spruce and fir trees. In general they are based on an upper diameter merchantability limit of 6" DIB. Current utilization standards include a small end diameter of 5" for spruce and fir sawlogs. With that in mind, these tables may underestimate tree volumes in some cases, though not by much.

Form class tables of 78 and 80 in International ¼" and Maine rules are included. The International rule tables are based on Bickford's Form Class 78 table from *Form-class Volume Tables for Estimating Board-foot Content of Northern Conifers* (Northeastern Forest Experiment. Station Paper No. 38, 1951). The original table was included a diameter range from 10 to 30 inches, in two inch increments. It has been expanded here to include 8 and 9 inch diameters and one inch increments. Volumes for odd diameters were interpolated from the diameters above and below them in each height category. The Form Class 80 International rule table was created by increasing the Form Class 78 table volumes by six percent.

The Form Class 78 and 80 Maine rule tables are based on those in Young's *Additional Volume Tables* for Maine (University of Maine, 1971). They are enhanced by 8 and 9 inch diameter classes. The original 2 inch diameter classes have been expanded to include 1 inch classes within the original range by interpolation.

People working in Maine are strongly urged to obtain copies of both *Volume Tables for Maine* and *Additional Volume Tables for Maine*. They are both available through the University of Maine's website.

Northern Conifers - Board Foot Volumes
International rule - Form Class 78

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	20								
9	30	40							
10	36	48	56	63					
11	46	61	72	81					
12	56	74	88	98	109				
13	66	89	106	119	133				
14	75	104	124	140	156	167			
15	91	123	146	166	184	199			
16	106	141	168	192	212	231	247		
17	121	162	193	220	244	266	284		
18	136	182	217	248	276	300	321		
19	154	206	277	281	312	340	364		
20	171	229	337	313	348	379	407	431	
21	191	256	372	350	389	423	455	483	
22	211	282	406	387	430	467	503	535	
23	232	310	443	425	474	515	555	590	
24	252	338	480	463	517	563	606	644	681
25	276	369	480	507	566	618	664	706	748
26	299	400	480	550	614	672	722	768	814
27	323	432	520	596	665	728	783	833	881
28	347	464	560	642	716	783	844	898	948
29	375	502	604	693	773	846	912	972	1026
30	403	540	648	744	830	909	980	1045	1104

to a flexible limit, but not less than 6" DIB

Northern Conifers - Board Foot Volumes
International Rule - Form Class 80

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	20								
9	30	40							
10	38	51	59	67					
11	49	65	76	85					
12	59	78	93	104	116				
13	69	94	112	126	140				
14	80	110	131	148	165	177			
15	96	130	155	176	195	211			
16	112	149	178	204	225	245	262		
17	128	171	204	233	259	281	301		
18	144	193	230	263	293	318	340		
19	163	218	294	297	331	360	386		
20	181	243	357	332	369	402	431	457	
21	202	271	394	371	412	448	482	512	
22	224	299	430	410	456	495	533	567	
23	245	329	470	451	502	546	588	625	
24	267	358	509	491	548	597	642	683	722
25	292	391	509	537	599	655	704	748	792
26	317	424	509	583	651	712	765	814	863
27	342	458	551	632	705	771	830	883	934
28	368	492	594	681	759	830	895	952	1005
29	398	532	640	735	819	897	967	1030	1088
30	427	572	687	789	880	964	1039	1108	1170

to a flexible limit, but not less than 6" DIB

Northern Conifers – International Rule

Northern Conifers
Maine rule - Form Class 78

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	20								
9	31	41							
10	39	51	63						
11	49	64	78						
12	59	76	93	106	119				
13	70	90	110	126	142				
14	81	104	127	146	164				
15	95	122	148	169	190				
16	109	139	169	192	216	236	256		
17	125	159	193	220	247	269	292		
18	140	178	217	247	277	302	328		
19	158	201	244	278	312	340	369		
20	176	224	271	309	347	378	409		
21	197	249	302	344	386	420	455		
22	217	274	332	378	424	462	501		
23	238	301	364	415	466	507	550		
24	259	328	396	452	507	552	598		
25	284	359	433	493	553	604	656		
26	308	389	470	534	599	656	713	760	619
27	333	421	508	578	649	710	771	823	684
28	358	452	546	622	698	764	829	886	750
29	387	488	590	672	754	825	895	956	824
30	416	524	633	721	809	885	961	1026	898

Northern Conifers Volume Table
Maine Rule - Form Class 80

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	20								
9	31	41							
10	42	55	68						
11	52	68	84						
12	62	80	99	113	127				
13	74	96	118	134	151				
14	86	111	136	155	174				
15	101	130	158	181	203				
16	115	148	180	206	231	252	272		
17	132	169	206	235	264	288	312		
18	148	190	231	264	296	324	351		
19	167	214	260	297	333	364	394		
20	186	237	288	329	370	404	437		
21	207	264	320	365	411	449	486		
22	228	290	351	401	451	493	535	572	608
23	251	319	387	442	497	543	588	629	670
24	274	348	422	482	542	592	641	686	731
25	299	380	460	525	591	646	702	750	799
26	324	411	498	568	639	700	762	813	866
27	352	446	540	616	692	757	822	880	938
28	379	480	582	664	745	814	882	946	1010
29	409	517	627	715	803	879	954	1021	1088
30	438	554	671	766	861	943	1025	1095	1165

Northern Conifers – Maine Rule

Eastern White Cedar

Eastern white cedar - Board Foot Volumes
International rule (to a 6" top)
Derived from Honer's Standard Volume Table Equations

DBH	total tree height (feet)							
	30	40	50	60	70	80	90	100
8	16	19	22	24	26	27	29	
9	25	30	34	37	40	43	45	
10		41	47	52	56	59	62	
11		53	61	67	72	76	80	83
12		66	75	83	89	94	99	103
13			91	100	108	114	120	125
14			108	118	127	135	142	148
15			125	138	148	157	165	172
16			144	159	171	181	190	198
17			164	181	194	206	216	225
18			186	204	220	233	244	254
19				229	246	261	274	285
20				255	274	290	305	317
21				282	303	321	337	351
22				310	334	354	371	387
23					366	388	407	424
24					399	105	444	463
25					434	460	483	503
26					470	499	523	545
27					508	539	565	589
28					547	580	609	634
29					587	623	654	681
30					629	667	700	729

Table derived from:

Honer, T. G. 1967. *Standard Volume Tables and Merchantable Conversion Factors for the Commercial Tree Species of Central and Eastern Canada*. Can. Dept. Forestry Rural Development, Forest. Management Research. and Service Institute. Info. Rep. FMR-X-5. 165 p.

Eastern White Cedar – International Rule

Hardwood Pulpwood

(Cordwood Table from Young's *Volume Tables for Maine*)

Maine Hardwood Pulpwood Volume Table - CORDS

DBH	Merchantable Height in 16 Foot Logs					
	1	1.5	2	2.5	3	3.5
6	0.025	0.038				
7	0.034	0.051				
8	0.045	0.067	0.089			
9	0.056	0.085	0.113			
10	0.070	0.105	0.140	0.175		
11	0.084	0.127	0.169	0.211		
12	0.100	0.151	0.201	0.251	0.302	
13	0.118	0.177	0.236	0.295	0.354	
14		0.205	0.274	0.342	0.411	0.479
15		0.236	0.314	0.393	0.471	0.551
16			0.358	0.447	0.536	0.626
17			0.404	0.505	0.605	0.706
18			0.453	0.566	0.679	0.792
19				0.630	0.756	0.882
20				0.698	0.838	0.978
21				0.775	0.924	1.078
22				0.845	1.014	1.183
23				0.924	1.108	1.293
24				1.006	1.207	1.408
25				1.091	1.310	1.528

formula: cords = 0.0001746 x DBH^2 x # of 4' bolts

Maine Hardwood Pulpwood Volume Table - TONS

DBH	Merchantable Height in 16 Foot Logs					
	1	1.5	2	2.5	3	3.5
6	0.063	0.095				
7	0.085	0.128				
8	0.113	0.168	0.223			
9	0.140	0.213	0.283			
10	0.175	0.263	0.350	0.438		
11	0.210	0.318	0.423	0.528		
12	0.250	0.378	0.503	0.628	0.755	
13	0.295	0.443	0.590	0.738	0.885	
14		0.513	0.685	0.855	1.028	1.198
15		0.590	0.785	0.983	1.178	1.378
16			0.895	1.118	1.340	1.565
17			1.010	1.263	1.513	1.765
18			1.133	1.415	1.698	1.980
19				1.575	1.890	2.205
20				1.745	2.095	2.445
21				1.938	2.310	2.695
22				2.113	2.535	2.958
23				2.310	2.770	3.233
24				2.515	3.018	3.520
25				2.728	3.275	3.820

converted from cordwood table above at a rate of 2.5 tons per cord
hardwood species weights range by 20% + or -

Maine Hardwood Pulpwood

Hemlock Pulpwood
(Cordwood Table from Young's *Volume Tables for Maine*)

Hemlock Pulpwood - CORDS

DBH	Merchantable Height in Feet						
	30	40	50	60	70	80	90
6	0.032	0.145	0.059				
7	0.044	0.059	0.080				
8	0.057	0.079	0.101				
9	0.074	0.100	0.127	0.149			
10	0.097	0.123	0.155	0.179			
11	0.118	0.148	0.182	0.210			
12		0.181	0.217	0.249	0.286		
13		0.210	0.255	0.289	0.330		
14		0.247	0.293	0.332	0.374		
15		0.285	0.335	0.383	0.425	0.473	
16		0.320	0.375	0.433	0.477	0.540	
17				0.489	0.541	0.608	
18				0.552	0.611	0.690	
19				0.618	0.685	0.764	
20				0.697	0.773	0.855	0.960
21				0.781	0.865	0.953	1.067
22				0.867	0.963	1.062	1.187
23					1.065	1.175	1.312
24					1.171	1.291	1.447
25					1.271	1.402	1.572
26					1.391	1.530	1.723

Hemlock Pulpwood - TONS

DBH	Merchantable Height in Feet						
	30	40	50	60	70	80	90
6	0.074	0.334	0.136				
7	0.101	0.136	0.184				
8	0.131	0.182	0.232				
9	0.170	0.230	0.292	0.343			
10	0.223	0.283	0.357	0.412			
11	0.271	0.340	0.419	0.483			
12		0.416	0.499	0.573	0.658		
13		0.483	0.587	0.665	0.759		
14		0.568	0.674	0.764	0.860		
15		0.656	0.771	0.881	0.978	1.088	
16		0.736	0.863	0.996	1.097	1.242	
17				1.125	1.244	1.398	
18				1.270	1.405	1.587	
19				1.421	1.576	1.757	
20				1.603	1.778	1.967	2.208
21				1.796	1.990	2.192	2.454
22				1.994	2.215	2.443	2.730
23					2.450	2.703	3.018
24					2.693	2.969	3.328
25					2.923	3.225	3.616
26					3.199	3.519	3.963

converted from cordwood measure at 2.3 tons per cord

Maine Hemlock Pulpwood

Spruce Pulpwood
(Cordwood Table from Austin Carey's *A Manual for Northern Woodsmen)*

Spruce Pulpwood Volume Table - CORDS

DBH	Merchantable Height in Feet								
	40	45	50	55	60	65	70	75	80
6	0.04	0.04	0.05	0.06					
7	0.06	0.06	0.07	0.08	0.09				
8	0.07	0.08	0.09	0.10	0.12	0.13			
9	0.09	0.10	0.12	0.13	0.14	0.16			
10	0.11	0.12	0.14	0.16	0.17	0.19	0.20	0.22	
11		0.15	0.17	0.19	0.20	0.22	0.24	0.26	0.28
12		0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32
13		0.21	0.23	0.25	0.27	0.30	0.32	0.34	0.37
14			0.26	0.29	0.31	0.34	0.36	0.39	0.42
15				0.32	0.35	0.38	0.40	0.43	0.47
16				0.36	0.39	0.42	0.45	0.48	0.52
17				0.40	0.43	0.46	0.50	0.54	0.59
18				0.45	0.48	0.50	0.55	0.59	0.64
19				0.49	0.52	0.56	0.60	0.65	0.70
20				0.52	0.57	0.62	0.66	0.72	0.77

Spruce Pulpwood Volume Table - TONS

DBH	Merchantable Height in Feet								
	40	45	50	55	60	65	70	75	80
6	0.06	0.06	0.08	0.09					
7	0.09	0.09	0.11	0.12	0.14				
8	0.11	0.12	0.14	0.15	0.18	0.20			
9	0.14	0.15	0.18	0.20	0.21	0.24			
10	0.17	0.18	0.21	0.24	0.26	0.29	0.30	0.33	
11		0.23	0.26	0.29	0.30	0.33	0.36	0.39	0.42
12		0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48
13		0.32	0.35	0.38	0.41	0.45	0.48	0.51	0.56
14			0.39	0.44	0.47	0.51	0.54	0.59	0.63
15				0.48	0.53	0.57	0.60	0.65	0.71
16				0.54	0.59	0.63	0.68	0.72	0.78
17				0.60	0.65	0.69	0.75	0.81	0.89
18				0.68	0.72	0.75	0.83	0.89	0.96
19				0.74	0.78	0.84	0.90	0.98	1.05
20				0.78	0.86	0.93	0.99	1.08	1.16

converted from cord volumes at a rate of 1.5 tons/cord

SPRUCE PULPWOOD

Balsam Fir Pulpwood

(Cordwood Table abbreviated from Young's *Additional Volume Tables for Maine*)

Balsam Fir Pulpwood Volume Table - CORDS

DBH	Height in # of 8' Bolts						
	1	2	3	4	5	6	7
5	0.008	0.019					
6	0.013	0.027	0.044				
7		0.037	0.055	0.074	0.093		
8			0.068	0.089	0.110		
9			0.083	0.106	0.130	0.153	
10				0.125	0.151	0.178	0.204
11				0.146	0.176	0.205	0.234
12				0.169	0.202	0.235	0.267
13				0.195	0.231	0.267	0.303
14					0.262	0.302	0.342
15					0.296	0.340	0.384

Balsam Fir Pulpwood Volume Table - TONS

DBH	Height in # of 8' Bolts						
	1	2	3	4	5	6	7
5	0.017	0.039					
6	0.027	0.055	0.090				
7		0.076	0.113	0.152	0.191		
8			0.139	0.182	0.226		
9			0.170	0.217	0.267	0.314	
10				0.256	0.310	0.365	0.418
11				0.299	0.361	0.420	0.480
12				0.346	0.414	0.482	0.547
13				0.400	0.474	0.547	0.621
14					0.537	0.619	0.701
15					0.607	0.697	0.787

converted from cord volumes at a rate of 2.05 tons/cord

Maine Balsam Fir Pulpwood

Lake States Pulpwood
(Ek, Droessler & Checky, 1986)

Lake States Pulpwood - CORDS 4" top diameter

Number of eight-foot bolts

DBH	1	2	3	4	5	6	7	8	9	10
6	0.016	0.028	0.040	0.052	0.065	0.077	0.090	0.103		
7	0.020	0.037	0.050	0.064	0.079	0.096	0.111	0.127	0.143	0.159
8	0.026	0.046	0.063	0.079	0.097	0.116	0.137	0.155	0.174	0.194
9	0.032	0.057	0.078	0.098	0.118	0.140	0.164	0.187	0.209	0.232
10	0.038	0.069	0.094	0.118	0.141	0.167	0.194	0.223	0.249	0.276
11	0.045	0.081	0.112	0.139	0.167	0.196	0.227	0.262	0.294	0.324
12	0.052	0.095	0.130	0.163	0.195	0.229	0.265	0.304	0.342	0.378
13	0.060	0.109	0.151	0.189	0.225	0.265	0.306	0.350	0.395	0.437
14	0.069	0.125	0.173	0.216	0.258	0.303	0.350	0.400	0.452	0.500
15	0.078	0.141	0.196	0.245	0.293	0.344	0.397	0.453	0.514	0.568
16	0.088	0.159	0.220	0.276	0.330	0.388	0.448	0.510	0.579	0.640
17	0.098	0.177	0.246	0.309	0.370	0.434	0.502	0.571	0.649	0.718
18		0.197	0.274	0.344	0.412	0.483	0.559	0.635	0.723	0.800
19		0.217	0.303	0.380	0.455	0.535	0.619	0.703	0.800	0.886
20		0.239	0.333	0.418	0.502	0.589	0.682	0.775	0.881	0.977
21		0.262	0.365	0.458	0.550	0.646	0.749	0.851	0.967	1.073
22		0.285	0.398	0.500	0.600	0.706	0.819	0.930	1.057	1.773
23		0.310	0.432	0.543	0.653	0.768	0.891	1.013	1.150	1.278
24		0.336	0.468	0.589	0.708	0.833	0.967	1.100	1.248	1.388
25		0.363	0.506	0.636	0.765	0.901	1.046	1.190	1.350	1.502
26		0.391	0.544	0.685	0.824	0.971	1.128	1.284	1.456	1.620
27		0.419	0.585	0.736	0.886	1.044	1.214	1.381	1.566	1.744
28		0.449	0.626	0.788	0.949	1.120	1.302	1.482	1.681	1.872
29		0.480	0.669	0.843	1.015	1.198	1.394	1.587	1.799	2.004
30		0.512	0.714	0.899	1.083	1.279	1.490	1.695	1.921	2.141

Ek, A.R., T.D. Droessler and Michael Checky. 1986. Taper equations for the Lakes States Composite Volume Tables and their Application. University of Minnestoa, College of Forestry, Departmebnt of Forest Resources Staff Paper Series Report #57.

Lake States
PULPWOOD (CORDS)

Jack Pine Pulpwood
(converted from Ek, Droessler & Checky's Lake States Pulpwood Table)

Lake States Jack Pine Pulpwood - TONS 4" top diameter

Number of eight-foot bolts

DBH	1	2	3	4	5	6	7	8	9	10
6	0.036	0.063	0.090	0.117	0.146	0.173	0.203	0.232		
7	0.045	0.083	0.113	0.144	0.178	0.216	0.250	0.286	0.322	0.358
8	0.059	0.104	0.142	0.178	0.218	0.261	0.308	0.349	0.392	0.437
9	0.072	0.128	0.176	0.221	0.266	0.315	0.369	0.421	0.470	0.522
10	0.086	0.155	0.212	0.266	0.317	0.376	0.437	0.502	0.560	0.621
11	0.101	0.182	0.252	0.313	0.376	0.441	0.511	0.590	0.662	0.729
12	0.117	0.214	0.293	0.367	0.439	0.515	0.596	0.684	0.770	0.851
13	0.135	0.245	0.340	0.425	0.506	0.596	0.689	0.788	0.889	0.983
14	0.155	0.281	0.389	0.486	0.581	0.682	0.788	0.900	1.017	1.125
15	0.176	0.317	0.441	0.551	0.659	0.774	0.893	1.019	1.157	1.278
16	0.198	0.358	0.495	0.621	0.743	0.873	1.008	1.148	1.303	1.440
17	0.221	0.398	0.554	0.695	0.833	0.977	1.130	1.285	1.460	1.616
18		0.443	0.617	0.774	0.927	1.087	1.258	1.429	1.627	1.800
19		0.488	0.682	0.855	1.024	1.204	1.393	1.582	1.800	1.994
20		0.538	0.749	0.941	1.130	1.325	1.535	1.744	1.982	2.198
21		0.590	0.821	1.031	1.238	1.454	1.685	1.915	2.176	2.414
22		0.641	0.896	1.125	1.350	1.589	1.843	2.093	2.378	3.989
23		0.698	0.972	1.222	1.469	1.728	2.005	2.279	2.588	2.876
24		0.756	1.053	1.325	1.593	1.874	2.176	2.475	2.808	3.123
25		0.817	1.139	1.431	1.721	2.027	2.354	2.678	3.038	3.380
26		0.880	1.224	1.541	1.854	2.185	2.538	2.889	3.276	3.645
27		0.943	1.316	1.656	1.994	2.349	2.732	3.107	3.524	3.924
28		1.010	1.409	1.773	2.135	2.520	2.930	3.335	3.782	4.212
29		1.080	1.505	1.897	2.284	2.696	3.137	3.571	4.048	4.509
30		1.152	1.607	2.023	2.437	2.878	3.353	3.814	4.322	4.817

converted from cords at a rate of 2.25 tons per cord

Lake States
JACK PINE PULPWOOD (TONS)

Red Pine Pulpwood
(converted from Ek, Droessler & Checky's Lake States Pulpwood Table)

Lake States Red Pine Pulpwood - TONS 4" top diameter

Number of eight-foot bolts

DBH	1	2	3	4	5	6	7	8	9	10
6	0.038	0.066	0.094	0.122	0.153	0.181	0.212	0.242		
7	0.047	0.087	0.118	0.150	0.186	0.226	0.261	0.298	0.336	0.374
8	0.061	0.108	0.148	0.186	0.228	0.273	0.322	0.364	0.409	0.456
9	0.075	0.134	0.183	0.230	0.277	0.329	0.385	0.439	0.491	0.545
10	0.089	0.162	0.221	0.277	0.331	0.392	0.456	0.524	0.585	0.649
11	0.106	0.190	0.263	0.327	0.392	0.461	0.533	0.616	0.691	0.761
12	0.122	0.223	0.306	0.383	0.458	0.538	0.623	0.714	0.804	0.888
13	0.141	0.256	0.355	0.444	0.529	0.623	0.719	0.823	0.928	1.027
14	0.162	0.294	0.407	0.508	0.606	0.712	0.823	0.940	1.062	1.175
15	0.183	0.331	0.461	0.576	0.689	0.808	0.933	1.065	1.208	1.335
16	0.207	0.374	0.517	0.649	0.776	0.912	1.053	1.199	1.361	1.504
17	0.230	0.416	0.578	0.726	0.870	1.020	1.180	1.342	1.525	1.687
18		0.463	0.644	0.808	0.968	1.135	1.314	1.492	1.699	1.880
19		0.510	0.712	0.893	1.069	1.257	1.455	1.652	1.880	2.082
20		0.562	0.783	0.982	1.180	1.384	1.603	1.821	2.070	2.296
21		0.616	0.858	1.076	1.293	1.518	1.760	2.000	2.272	2.522
22		0.670	0.935	1.175	1.410	1.659	1.925	2.186	2.484	4.167
23		0.729	1.015	1.276	1.535	1.805	2.094	2.381	2.703	3.003
24		0.790	1.100	1.384	1.664	1.958	2.272	2.585	2.933	3.262
25		0.853	1.189	1.495	1.798	2.117	2.458	2.797	3.173	3.530
26		0.919	1.278	1.610	1.936	2.282	2.651	3.017	3.422	3.807
27		0.985	1.375	1.730	2.082	2.453	2.853	3.245	3.680	4.098
28		1.055	1.471	1.852	2.230	2.632	3.060	3.483	3.950	4.399
29		1.128	1.572	1.981	2.385	2.815	3.276	3.729	4.228	4.709
30		1.203	1.678	2.113	2.545	3.006	3.502	3.983	4.514	5.031

converted from cords at a rate of 2.35 tons per cord

Lake States
RED PINE PULPWOOD (TONS)

White (Paper) Birch Pulpwood

White (Paper) Birch Pulpwood Table - CORDS
Derived from Honer's Standard Volume Table Equations

DBH	Total Tree Height in Feet								
	40	50	60	70	80	90	100	110	120
10	0.110	0.130	0.148	0.165	0.180	0.193			
11	0.135	0.160	0.182	0.202	0.220	0.237	0.252		
12	0.162	0.192	0.218	0.242	0.264	0.284	0.302		
13		0.226	0.258	0.286	0.312	0.335	0.357		
14		0.264	0.300	0.333	0.363	0.390	0.415		
15		0.304	0.346	0.384	0.418	0.450	0.478		
16		0.346	0.394	0.438	0.477	0.513	0.546	0.576	0.604
17		0.392	0.446	0.495	0.540	0.580	0.617	0.651	0.683
18		0.440	0.501	0.556	0.606	0.651	0.693	0.731	0.766
19			0.223	0.620	0.676	0.727	0.773	0.816	0.855
20			0.620	0.688	0.750	0.806	0.858	0.905	0.948
21			0.684	0.759	0.827	0.890	0.946	0.999	1.047
22			0.751	0.834	0.909	0.977	1.039	1.097	1.150
23				0.912	0.994	1.068	1.137	1.200	1.257
24				0.994	1.083	1.164	1.238	1.307	1.370
25				1.079	1.175	1.264	1.344	1.419	1.487
26				1.167	1.272	1.367	1.455	1.535	1.609
27				1.259	1.372	1.475	1.569	1.656	1.736
28				1.355	1.476	1.587	1.691	1.782	1.867
29				1.454	1.584	1.703	1.812	1.912	2.004
30				1.556	1.696	1.823	1.939	2.046	2.145

converted from cubic feet at a rate of 85 feet per cord
volumes based on a 0.5' stump and a 4" DIB top

Table derived from:

Honer, T. G. 1967. *Standard Volume Tables and Merchantable Conversion Factors for the Commercial Tree Species of Central and Eastern Canada*. Can. Dept. Forestry Rural Development, Forest. Management Research. and Service Institute. Info. Rep. FMR-X-5. 165 p.

White Birch Pulpwood - CORDS

White (Paper) Birch Pulpwood

White (Paper) Birch Pulpwood Table - TONS
Derived from Honer's Standard Volume Table Equations

DBH	total tree height (feet)								
	40	50	60	70	80	90	100	110	120
10	0.234	0.277	0.315	0.350	0.382	0.411			
11	0.287	0.339	0.387	0.429	0.468	0.503	0.535		
12	0.345	0.407	0.464	0.515	0.561	0.603	0.642		
13		0.481	0.548	0.608	0.663	0.712	0.758		
14		0.560	0.638	0.708	0.772	0.828	0.883		
15		0.645	0.735	0.816	0.889	0.955	1.017		
16		0.736	0.838	0.930	1.014	1.090	1.159	1.224	1.282
17		0.833	0.948	1.052	1.147	1.233	1.311	1.384	1.450
18		0.935	1.064	1.182	1.288	1.384	1.473	1.554	1.629
19			0.474	1.318	1.436	1.544	1.643	1.734	1.817
20			1.318	1.462	1.593	1.713	1.822	1.923	2.016
21			1.454	1.614	1.758	1.890	2.011	2.122	2.224
22			1.597	1.772	1.931	2.076	2.209	2.331	2.443
23				1.938	2.112	2.271	2.416	2.549	2.672
24				2.112	2.301	2.474	2.632	2.777	2.911
25				2.292	2.498	2.685	2.857	3.014	3.160
26				2.480	2.703	2.906	3.091	3.262	3.419
27				2.676	2.916	3.135	3.335	3.519	3.688
28				2.879	3.137	3.372	3.594	3.786	3.968
29				3.089	3.366	3.619	3.850	4.062	4.258
30				3.306	3.603	3.874	4.121	4.348	4.557

converted from cubic feet at a rate of 50 lbs. per cubic foot
volumes based on a 0.5' stump and a 4" DIB top

Table derived from:

Honer, T. G. 1967. *Standard Volume Tables and Merchantable Conversion Factors for the Commercial Tree Species of Central and Eastern Canada*. Can. Dept. Forestry Rural Development, Forest. Management Research. and Service Institute. Info. Rep. FMR-X-5. 165 p.

White Birch Pulpwood - TONS

Northern Michigan Tree Weights
(from Steinhilb, Arola & Winsauer, 1984)

White Spruce Stem Weights (to a 3" top) - TONS

DBH	Total Tree Height in Feet						
	20	30	40	50	60	70	80
6	0.086	0.107	0.128	0.148	0.169	0.190	0.211
8	0.118	0.155	0.192	0.230	0.267	0.304	0.341
10	0.160	0.218	0.276	0.334	0.392	0.450	0.508
12		0.295	0.378	0.462	0.545	0.629	0.712
14		0.385	0.499	0.612	0.726	0.840	0.953
16			0.638	0.786	0.935	1.083	1.232
18				0.984	1.172	1.359	1.547
20					1.436	1.668	1.900

Aspen (popple) Stem Weights (to a 3" top) - TONS

DBH	Total Tree Height in Feet							
	20	30	40	50	60	70	80	90
6	0.045	0.068	0.091	0.114	0.137	0.161	0.184	0.207
8	0.081	0.122	0.163	0.204	0.245	0.286	0.327	0.368
10	0.127	0.191	0.255	0.319	0.383	0.447	0.511	0.575
12	0.184	0.276	0.368	0.460	0.552	0.644	0.737	0.829
14		0.376	0.501	0.626	0.752	0.877	1.003	1.128
16			0.655	0.818	0.982	1.146	1.310	1.474
18				1.036	1.243	1.451	1.658	1.865
20				1.279	1.535	1.791	2.047	2.303

Red Pine Stem Weights (to a 3" top) - TONS

DBH	Total Tree Height in Feet					
	30	40	50	60	70	80
6	0.089	0.116	0.144	0.172	0.199	0.227
8	0.153	0.203	0.252	0.301	0.350	0.400
10	0.214	0.313	0.390	0.467	0.544	0.621
12	0.338	0.449	0.560	0.671	0.782	0.892
14		0.609	0.760	0.911	1.062	1.213
16			0.991	1.188	1.385	1.582
18				1.502	1.752	2.001
20				0.000	2.161	2.469

Steinhilb, Helmuth M., Arola, Rodger A and Sharon A. Winsauer. 1984. *Green Weight Tables for Eight Tree Species in Northern Michigan.* USDA Forest Service General Technical Report NC-95.

Northern Michigan
TREE WEIGHTS (TONS)

Whole Tree Weight Tables

Several whole tree weight tables are included here. These all originate from Monteith's *Whole Tree Weight Tables for New York State* (1979). Some smaller diameter classes have been omitted. Green weights are shown in all cases, and pounds have been converted to tons. The original publication included weights for ten species, as well as combined softwood and hardwood weights. Though all of the data used in these tables originated in New York State, these tables probably have some applicability to a broader area.

WHOLE TREE GREEN WEIGHT
Combined Hardwoods - TONS

DBH	Total Tree Height in Feet					
	15	30	50	65	80	95
4	0.03	0.05	0.08	0.10		
5	0.05	0.03	0.12	0.16	0.19	
6	0.07	0.11	0.18	0.22	0.27	
7	0.09	0.15	0.24	0.30	0.37	0.43
8	0.11	0.20	0.31	0.37	0.48	0.57
9	0.14	0.25	0.39	0.50	0.61	0.72
10	0.17	0.30	0.48	0.62	0.75	0.89
11	0.20	0.36	0.58	0.74	0.91	1.07
12	0.23	0.43	0.69	0.88	1.08	1.28
13	0.27	0.50	0.81	1.04	1.27	1.50
14	0.31	0.58	0.93	1.20	1.47	1.73
15	0.35	0.66	1.07	1.38	1.68	1.99
16		0.75	1.21	1.56	1.91	2.26
17		0.84	1.37	1.76	2.16	2.55
18			1.53	1.97	2.42	2.86
19			1.70	2.20	2.69	3.19
20				2.43	2.98	3.53
21				2.68	3.28	3.89
22					3.60	4.26

New York Whole Tree Weights
COMBINED HARDWOODS

WHOLE TREE GREEN WEIGHT
Combined Softwoods - TONS

DBH	Total Tree Height in Feet					
	15	30	50	65	80	95
4	0.04	0.05	0.06	0.07		
5	0.06	0.08	0.11	0.13	0.15	
6	0.08	0.11	0.16	0.19	0.23	
7	0.10	0.16	0.22	0.27	0.32	0.37
8	0.13	0.20	0.29	0.36	0.43	0.50
9	0.16	0.25	0.37	0.46	0.56	0.65
10	0.19	0.31	0.46	0.58	0.69	0.81
11	0.23	0.37	0.56	0.70	0.84	0.98
12	0.26	0.43	0.66	0.83	1.01	1.18
13	0.30	0.50	0.78	0.98	1.18	1.39
14	0.34	0.58	0.90	1.14	1.37	1.61
15	0.39	0.66	1.03	1.30	1.58	1.85
16		0.75	1.17	1.48	1.80	2.11
17		0.84	1.31	1.67	2.03	2.38
18			1.47	1.87	2.27	2.67
19			1.63	2.08	2.53	2.98
20				2.31	2.80	3.30
21				2.54	3.09	3.64
22					3.39	3.99

New York Whole Tree Weights
COMBINED SOFTWOODS

WHOLE TREE GREEN WEIGHT
Beech - TONS

	Total Tree Height in Feet					
DBH	15	30	50	65	80	95
4	0.04	0.06	0.09	0.11		
5	0.06	0.10	0.15	0.18	0.22	
6	0.08	0.14	0.21	0.27	0.32	
7	0.11	0.19	0.29	0.37	0.45	0.52
8	0.14	0.24	0.38	0.48	0.59	0.69
9	0.17	0.30	0.48	0.56	0.74	0.87
10	0.21	0.37	0.59	0.75	0.92	1.08
11	0.25	0.45	0.71	0.91	1.11	1.31
12	0.29	0.53	0.85	1.08	1.32	1.56
13	0.34	0.62	0.99	1.27	1.55	1.83
14	0.39	0.71	1.15	1.47	1.80	2.12
15	0.44	0.82	1.31	1.69	2.06	2.44
16		0.92	1.49	1.92	2.34	2.77
17		1.04	1.68	2.16	2.65	3.13
18			1.88	2.42	2.96	3.50
19			2.09	2.70	3.30	3.90
20				2.99	3.65	4.32
21				3.29	4.03	4.76
22					4.42	5.23

New York Whole Tree Weights
BEECH

WHOLE TREE GREEN WEIGHT
Soft maple - TONS

DBH	Total Tree Height in Feet					
	15	30	50	65	80	95
4	0.02	0.05	0.07	0.09		
5	0.04	0.07	0.11	0.15	0.18	
6	0.05	0.10	0.16	0.21	0.26	
7	0.07	0.13	0.22	0.29	0.35	0.42
8	0.09	0.18	0.29	0.37	0.46	0.54
9	0.11	0.22	0.36	0.47	0.58	0.69
10	0.14	0.27	0.45	0.58	0.71	0.85
11	0.17	0.33	0.54	0.70	0.86	1.02
12	0.20	0.39	0.64	0.84	1.03	1.22
13	0.23	0.46	0.76	0.98	1.20	1.43
14	0.27	0.53	0.88	1.14	1.40	1.66
15	0.31	0.61	1.01	1.30	1.60	1.90
16		0.69	1.14	1.48	1.82	2.16
17		0.78	1.29	1.67	2.06	2.44
18			1.45	1.88	2.31	2.74
19			1.61	2.09	2.57	3.05
20				2.31	2.85	3.38
21				2.55	3.14	3.72
22					3.44	4.08

soft maple has been suggested as a proxy for Scots pine

New York Whole Tree Weights
SOFT MAPLE

MODIFIED HEIGHT TREE VOLUME TABLES

FORM CLASS 78 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	43	48	53	62	70	78	81	89	98	105	111	117	125	132
15	51	57	62	73	83	92	96	105	115	124	131	139	148	156
16	58	65	72	84	95	106	111	122	133	143	151	160	171	180
17	67	74	82	96	109	121	127	139	153	164	173	183	196	206
18	75	84	92	107	122	136	143	156	171	184	196	207	221	233
19	85	95	104	122	139	154	162	178	194	209	222	235	251	264
20	94	105	115	135	154	171	181	199	218	234	249	263	281	296
21	105	117	129	151	172	191	203	223	244	262	279	295	315	332
22	116	130	142	167	190	211	225	247	270	290	309	328	350	368
23	127	142	156	182	208	231	246	270	296	318	339	360	384	404
24	138	154	169	198	226	251	268	294	322	346	370	392	419	441
25	151	169	186	217	248	275	295	323	353	380	407	431	460	484
26	164	184	202	236	269	299	321	352	385	414	444	470	502	528
27	178	199	218	255	291	323	347	381	417	448	480	509	543	572
28	191	213	234	274	312	347	374	410	448	482	517	548	585	616
29	206	231	253	296	338	375	404	443	485	521	560	594	634	667
30	222	248	272	318	363	403	434	476	521	560	603	639	682	718
31	238	266	292	341	389	432	467	512	560	602	648	687	733	772
32	254	284	312	365	416	462	499	547	599	644	694	735	785	826
33	271	303	332	389	443	492	532	583	638	686	739	783	836	880
34	287	320	352	412	469	521	564	619	677	728	785	831	887	934
35	305	341	375	438	500	555	601	660	722	776	838	888	948	998
36	324	362	398	465	530	589	640	702	768	826	893	946	1010	1063
37	342	383	420	491	560	622	677	742	812	873	944	1000	1068	1124
38	361	403	443	518	590	656	714	783	857	921	996	1056	1127	1186
39	382	427	468	548	625	694	756	830	908	976	1057	1120	1195	1258
40	402	450	493	577	658	731	798	876	958	1030	1116	1183	1263	1329

FORM CLASS 79 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	45	50	55	65	74	82	85	94	102	110	116	123	131	138
15	52	58	64	75	86	95	99	109	119	128	134	142	152	160
16	59	66	73	85	97	108	113	124	136	146	154	163	174	183
17	68	76	84	98	112	124	130	143	156	168	178	189	201	212
18	77	86	95	111	126	140	147	162	177	190	202	214	228	240
19	87	97	107	125	142	158	167	183	200	215	228	242	258	272
20	97	108	119	139	158	176	186	204	223	240	256	271	290	305
21	108	121	132	155	176	196	208	229	250	269	287	304	325	342
22	119	133	146	171	194	216	230	252	276	297	318	336	359	378
23	131	146	161	188	214	238	254	279	305	328	351	372	397	418
24	143	160	176	205	234	260	278	305	334	359	385	408	435	458
25	155	173	190	223	254	282	302	332	363	390	419	444	474	499
26	168	188	206	241	275	305	327	359	392	422	454	481	513	540
27	182	204	223	261	298	331	357	391	428	460	494	523	559	588
28	196	220	241	282	321	357	384	422	461	496	533	565	603	635
29	212	237	260	304	347	385	415	456	498	536	576	611	652	686
30	227	254	279	326	372	413	446	489	535	575	619	656	700	737
31	244	273	300	351	400	444	479	525	575	618	665	705	752	792
32	261	292	320	374	427	474	512	562	615	661	712	755	806	848
33	278	311	342	400	455	506	547	600	657	706	762	807	862	907
34	296	331	363	425	484	538	583	639	699	752	811	860	918	966
35	314	351	385	450	513	570	618	678	742	798	862	913	975	1026
36	331	370	406	476	542	602	654	717	785	844	913	967	1033	1087
37	351	392	431	504	574	638	694	762	833	896	969	1027	1096	1154
38	371	415	455	532	607	674	734	805	881	947	1025	1086	1159	1220
39	392	438	481	562	641	712	777	852	932	1002	1085	1150	1227	1292
40	413	461	506	593	675	750	820	899	984	1058	1147	1215	1297	1365

FORM CLASS 80 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	46	51	56	66	75	83	87	95	104	112	118	125	134	141
15	54	60	66	77	88	98	102	112	123	132	139	148	158	166
16	62	69	76	88	101	112	117	128	140	151	160	169	181	190
17	70	79	86	101	115	128	135	148	162	174	184	195	208	219
18	79	89	97	114	130	144	152	167	182	196	208	221	236	248
19	89	100	109	128	146	162	172	189	206	222	236	250	267	281
20	100	111	122	143	163	181	192	211	231	248	264	279	298	314
21	111	124	136	159	181	201	214	235	257	276	294	312	333	350
22	122	136	149	175	199	221	236	258	283	304	325	344	368	387
23	134	150	165	193	220	244	260	286	312	336	360	381	407	428
24	146	164	180	210	239	266	285	313	342	368	394	417	446	469
25	160	178	196	229	261	290	312	342	374	402	432	457	488	514
26	173	194	213	249	284	315	338	371	405	436	469	497	530	558
27	188	210	230	269	307	341	367	403	441	474	509	539	576	606
28	202	226	248	290	330	367	395	434	474	510	549	582	621	654
29	218	244	267	313	356	396	427	468	512	551	593	628	671	706
30	233	261	286	335	382	424	458	502	550	591	637	675	720	758
31	250	279	306	359	409	454	491	539	590	634	684	724	773	814
32	267	298	327	383	437	485	525	576	631	678	731	774	827	870
33	285	319	350	409	466	518	561	615	673	724	781	828	884	930
34	303	338	371	435	495	550	597	655	716	770	831	880	940	989
35	322	360	395	462	527	585	636	697	763	820	886	939	1002	1055
36	341	381	419	490	558	620	674	740	809	870	942	998	1065	1121
37	361	403	443	518	590	656	715	784	857	922	998	1057	1129	1188
38	381	426	468	547	624	693	755	828	906	974	1055	1118	1193	1256
39	403	450	494	578	659	732	799	876	959	1031	1117	1184	1264	1330
40	424	474	520	608	693	770	842	923	1010	1086	1179	1249	1333	1403

FORM CLASS 82 International 1/4-inch rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	48	54	59	70	79	88	92	101	111	119	126	134	143	150
15	56	63	69	81	92	102	107	117	128	138	147	156	166	175
16	64	72	79	92	105	117	122	134	147	158	168	178	190	200
17	74	83	91	107	122	135	143	156	171	184	195	206	220	232
18	84	94	103	121	138	153	162	178	194	209	223	236	252	265
19	95	106	116	136	155	172	182	200	219	235	250	265	283	298
20	105	117	128	150	171	190	202	222	243	261	279	295	315	332
21	116	130	142	167	190	211	225	247	270	290	311	329	352	370
22	128	143	157	183	209	232	248	272	298	320	343	363	388	408
23	141	157	173	202	230	256	274	301	329	354	380	402	429	452
24	155	173	190	222	253	281	301	331	362	389	417	442	472	497
25	168	188	207	242	275	306	329	360	394	424	455	482	515	542
26	182	204	223	261	298	331	357	391	428	460	494	523	559	588
27	198	221	243	284	324	360	388	425	465	500	538	570	608	640
28	213	239	262	307	349	388	419	459	502	540	582	617	658	693
29	230	257	282	330	376	418	451	495	541	582	627	665	710	747
30	246	275	302	353	402	447	484	530	580	624	673	713	761	801
31	263	294	323	378	430	478	518	568	621	668	721	764	815	858
32	280	313	344	402	458	509	552	605	662	712	769	814	869	915
33	299	335	367	430	490	544	591	648	709	762	823	872	931	980
34	319	357	392	458	522	580	630	691	756	813	879	931	994	1046
35	339	379	416	487	554	616	670	735	804	865	936	991	1058	1114
36	358	400	439	514	586	651	710	779	852	916	992	1051	1122	1181
37	380	425	466	546	622	691	754	827	905	973	1054	1117	1192	1255
38	402	450	493	577	658	731	798	876	958	1030	1116	1183	1263	1329
39	424	474	520	608	693	770	827	907	992	1067	1179	1250	1334	1404
40	446	498	547	640	729	810	887	972	1064	1144	1242	1316	1405	1479

FORM CLASS 78 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	26	30	32	38	43	48	48	53	58	62	63	67	71	75
15	33	37	41	47	54	60	60	66	73	78	81	85	91	96
16	40	44	49	57	65	72	73	80	87	94	97	103	110	116
17	47	53	58	68	77	86	88	96	105	113	118	125	133	140
18	55	62	68	79	90	100	102	112	123	132	138	146	156	164
19	65	73	80	93	106	118	121	133	145	156	163	173	184	194
20	74	83	91	107	122	135	140	153	167	180	189	200	214	225
21	85	95	104	122	139	154	160	176	193	207	218	231	247	260
22	96	107	117	137	157	174	181	199	218	234	248	263	280	295
23	107	120	132	154	176	195	205	224	246	264	279	295	315	332
24	119	133	146	171	194	216	227	249	272	293	311	329	352	370
25	133	148	163	190	217	241	254	279	305	328	348	368	393	414
26	146	164	180	210	239	266	281	308	337	362	386	409	436	459
27	161	180	197	231	263	292	308	338	370	398	424	449	480	505
28	174	195	214	250	285	317	336	369	404	434	463	490	523	551
29	190	213	234	273	311	346	368	404	442	475	507	538	574	604
30	207	231	254	297	338	376	401	439	481	517	553	586	625	658
31	224	251	275	322	367	408	436	478	523	562	602	638	681	717
32	243	271	298	348	397	441	471	517	565	608	652	691	737	776
33	261	292	320	374	427	474	507	556	608	654	701	743	793	835
34	278	311	342	400	455	506	543	595	651	700	751	796	849	894
35	299	335	367	430	490	544	584	641	701	754	810	858	916	964
36	320	357	392	459	523	581	239	262	286	308	869	921	983	1035
37	340	380	417	488	556	618	667	731	800	860	926	981	1047	1102
38	360	403	442	517	590	655	707	775	848	912	983	1041	1112	1170
39	384	429	471	551	628	698	755	828	906	974	1050	1113	1188	1250
40	407	455	500	585	666	740	802	880	963	1035	1117	1184	1264	1330

FORM CLASS 79 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	28	31	34	40	45	50	50	54	60	64	66	70	75	79
15	34	38	42	49	56	62	62	68	74	80	83	88	94	99
16	41	46	50	58	67	74	74	82	89	96	100	106	113	119
17	49	55	60	70	80	89	91	99	109	117	122	129	138	145
18	57	64	70	82	94	104	107	117	128	138	144	152	162	171
19	67	75	82	96	110	122	126	138	151	162	170	180	192	202
20	76	85	94	110	125	139	144	158	173	186	196	207	221	233
21	88	98	108	126	144	160	166	182	199	214	226	239	256	269
22	99	111	122	142	162	180	188	206	225	242	256	271	290	305
23	111	124	136	160	182	202	212	233	255	274	291	308	329	346
24	124	138	152	178	203	225	237	260	285	306	324	344	367	386
25	136	153	167	196	223	248	262	287	314	338	360	381	407	428
26	150	167	184	215	245	272	288	316	346	372	396	419	447	471
27	165	185	203	237	270	300	318	349	381	410	438	464	495	521
28	180	202	221	259	295	328	349	383	419	450	480	508	542	571
29	197	220	242	283	322	358	381	418	458	492	526	557	595	626
30	213	239	262	307	349	388	414	454	497	534	571	605	646	680
31	232	259	284	333	379	421	450	493	539	580	622	659	703	740
32	250	279	306	359	409	454	486	533	583	627	672	712	760	800
33	269	301	330	386	440	489	524	575	629	676	726	769	821	864
34	288	322	354	414	472	524	563	617	675	726	780	826	882	928
35	308	344	378	442	504	560	603	661	724	778	836	886	945	995
36	327	366	402	470	536	595	642	704	770	828	892	945	1009	1062
37	350	391	429	502	572	636	687	753	824	886	954	1011	1079	1136
38	372	416	456	534	608	676	731	802	877	943	1016	1077	1150	1210
39	395	442	485	568	647	719	779	854	935	1005	1084	1149	1226	1291
40	419	469	514	602	686	762	827	907	992	1067	1152	1221	1303	1372

FORM CLASS 80 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	29	32	35	41	47	52	52	57	62	67	69	73	78	82
15	35	39	43	51	58	64	65	71	78	84	87	93	99	104
16	42	47	52	61	69	77	78	86	94	101	105	111	119	125
17	51	57	62	73	83	92	95	104	113	122	128	135	144	152
18	59	66	73	85	97	108	112	122	134	144	150	159	170	179
19	69	77	85	100	113	126	130	143	156	168	176	187	200	210
20	79	89	97	114	130	144	150	164	179	193	203	215	230	242
21	90	101	111	130	148	164	171	188	206	221	234	247	264	278
22	102	114	125	146	167	185	194	213	233	250	265	280	299	315
23	114	128	140	164	187	208	219	240	262	282	299	317	338	356
24	127	142	156	182	208	231	243	267	292	314	333	353	377	397
25	141	157	173	202	230	256	271	298	326	350	372	394	421	443
26	155	173	190	223	254	282	299	328	359	386	411	435	465	489
27	171	191	209	245	279	310	329	361	395	425	454	481	513	540
28	186	208	229	268	305	339	361	396	433	466	497	527	562	592
29	204	228	250	292	333	370	394	433	473	509	544	577	616	648
30	220	246	270	316	360	400	428	469	513	552	591	626	668	703
31	239	267	293	343	391	434	464	509	557	599	642	680	726	764
32	257	287	315	369	420	467	501	549	601	646	692	733	783	824
33	276	309	339	397	452	502	539	592	647	696	747	791	845	889
34	296	331	363	425	484	538	578	634	694	746	801	849	906	954
35	317	354	389	455	518	576	621	681	745	801	862	913	975	1026
36	338	378	415	486	554	615	664	728	797	857	923	978	1044	1099
37	361	403	443	518	590	656	709	778	851	915	986	1045	1115	1174
38	383	429	470	551	627	697	754	827	905	973	1049	1112	1187	1249
39	407	455	500	585	666	740	803	881	963	1036	1119	1185	1265	1332
40	431	482	529	619	706	784	852	934	1022	1099	1188	1258	1343	1414

FORM CLASS 82 Doyle log rule

VOLUME (board feet) BY MERCHANTABLE HEIGHT IN FEET

DBH	8	9	10	12	14	16	18	20	22	24	26	28	30	32
14	31	34	38	44	50	56	57	62	68	73	76	80	86	90
15	39	43	47	55	63	70	71	77	85	91	94	100	106	112
16	46	51	56	66	75	83	84	93	101	109	113	120	128	135
17	55	62	68	79	90	100	102	112	123	132	138	146	156	164
18	64	72	79	92	105	117	121	133	145	156	163	173	184	194
19	75	84	92	107	122	136	141	155	169	182	191	202	216	227
20	85	95	104	122	139	154	160	176	193	207	218	231	247	260
21	96	108	118	138	158	175	183	201	219	236	250	265	283	298
22	108	121	132	155	176	196	206	226	247	266	281	298	318	335
23	122	136	149	175	199	221	233	255	279	300	319	338	361	380
24	135	151	166	194	221	246	260	286	312	336	358	379	405	426
25	150	167	184	215	245	272	289	317	347	373	398	422	450	474
26	164	184	202	236	269	299	318	349	381	410	438	464	495	521
27	182	203	223	261	297	330	352	386	422	454	485	514	548	577
28	199	222	244	285	325	361	385	422	462	497	532	563	601	633
29	216	241	265	310	353	392	419	460	503	541	580	614	656	690
30	233	261	286	335	382	424	454	498	545	586	628	666	711	748
31	252	282	309	362	412	458	491	539	590	634	680	721	770	810
32	271	303	333	389	444	493	529	581	635	683	733	777	829	873
33	293	327	359	420	479	532	572	627	686	738	793	840	897	944
34	314	351	385	451	514	571	615	675	738	794	853	904	965	1016
35	336	375	412	482	549	610	659	723	791	850	916	970	1036	1090
36	358	400	439	514	585	650	704	772	844	908	979	1037	1107	1165
37	382	427	469	549	626	695	753	826	904	972	1048	1111	1186	1248
38	407	455	500	585	666	740	802	880	963	1035	1117	1184	1264	1330
39	431	482	529	619	706	784	853	935	1023	1100	1189	1259	1344	1415
40	456	510	560	655	746	829	902	989	1083	1164	1260	1335	1425	1500

Volume-Basal Area Ratio Tables

A VBAR table is created by taking any table that shows a tree's volume in relation to its DBH and Height and then dividing each entry by the amount of basal area (in square feet) for that DBH. The volume-basal area ratio tells us how much volume in a tree for every square foot of basal area the tree has in cross section at breast height. A table showing the basal area for each DBH is shown on the following page.

VBAR tables are intended to be used in making the calculations necessary for estimates of volume per acre from point sampling cruises. Select the appropriate table to reference the VBAR for each tree in the tally. Often multiple tables will be necessary to reference the full range of tree species, sizes and product categories likely to be present in the sample.

The VBAR tables that follow were created from the volume tables in the previous section. The V-BAR of a tree is equal to its volume (based on DBH and height class) divided by the basal area of that tree.

$$\text{V-BAR} = \text{Volume Basal Area Ratio} = \frac{\text{Volume of a tree}}{\text{Basal Area of a tree}}$$

The basal area of a tree is equal to .00545 x $(DBH)^2$. V-BAR tables have been created from each of the volume tables found in the previous section. Note that a V-BAR table can be created from any tree volume table (board foot, cord, tons, whole tree, cubic foot or other measure), by dividing the volume in each category by the basal area for that tree's diameter.

People often make the mistake of using a volume table when a VBAR table is appropriate, and vise versa. It is an easy mistake to make, simply because these tables are similar in appearance. An effort has been made to distinguish between these tables and the volume tables that precede them. All of these tables are clearly labeled as containing volume-basal area ratios and the bottom of each page in this appendix has the words "**VBAR TABLES**" in bold.

Creation of a VBAR table from a volume table from another source is easily accomplished using spreadsheet software such as Microsoft Excel. Simply divide the volume (regardless of units – board feet, MBF, cords, tons, etc) by 0.00545 x DBH^2.

Basal Area in Square Feet by Tree DBH

DBH (inches)	Basal Area (square feet)	DBH (inches)	Basal Area (square feet)
1	0.005	21	2.403
2	0.022	22	2.638
3	0.049	23	2.883
4	0.087	24	3.139
5	0.136	25	3.406
6	0.196	26	3.684
7	0.267	27	3.973
8	0.349	28	4.273
9	0.441	29	4.583
10	0.545	30	4.905
11	0.659	31	5.237
12	0.785	32	5.581
13	0.921	33	5.935
14	1.068	34	6.300
15	1.226	35	6.676
16	1.395	36	7.063
17	1.575	37	7.461
18	1.766	38	7.870
19	1.967	39	8.289
20	2.180	40	8.720

Form Class 75 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	33	61	79	97								
11	35	64	83	103								
12	36	65	85	106	121	136						
13	37	67	89	111	127	143						
14	37	67	90	112	129	147	158	169				
15	38	69	92	116	134	152	166	179				
16	38	70	93	117	136	156	170	184				
17	39	70	95	119	140	160	175	189				
18	39	71	96	121	142	162	177	192				
19	39	72	98	123	144	166	181	196				
20	40	72	98	124	146	167	183	199	211	224		
21	40	73	99	126	148	171	187	203	217	231		
22	40	73	100	127	149	172	189	206	221	235		
23	40	74	101	128	152	175	192	209	224	240		
24	41	74	101	129	153	176	193	210	227	243		
25	41	75	102	130	154	178	196	213	231	248		
26	41	75	103	131	155	179	198	216	233	251		
27	41	75	104	132	157	181	200	218	236	254		
28	41	75	104	133	158	182	201	220	238	256	272	289
29	42	75	105	134	159	184	202	221	240	259	277	295
30	42	76	105	134	159	185	203	222	242	262	260	299
31	42	76	105	135	161	186	206	225	245	264	284	303
32	42	76	106	135	161	188	207	228	247	265	286	306
33	42	76	106	136	162	189	209	229	248	268	289	310
34	42	76	106	136	163	190	210	230	250	269	291	313
35	42	77	107	137	164	191	212	232	252	272	293	315
36	42	77	107	138	165	192	213	234	254	274	295	316
37	42	77	108	138	166	194	215	236	257	277	298	319
38	42	77	108	139	167	195	216	237	258	280	300	321
39	42	77	108	139	168	196	217	239	260	281	302	323
40	43	77	109	140	168	196	218	240	261	281	303	324

Form Class 76 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	34	62	81	101	114	127						
11	36	65	85	106	121	136						
12	36	66	87	108	125	140						
13	38	68	91	113	130	148						
14	38	69	93	116	134	152	163	174				
15	39	71	95	119	139	158	171	184				
16	39	72	96	121	142	162	176	191				
17	40	72	98	124	145	166	182	197				
18	40	73	99	125	147	168	184	200				
19	41	74	101	127	149	171	188	204				
20	41	74	101	128	150	173	189	206	219	233		
21	41	75	102	130	153	176	193	210	224	238		
22	41	75	103	130	154	177	195	212	227	242		
23	42	76	104	132	155	179	197	214	231	247		
24	42	75	104	132	156	181	198	215	233	250		
25	42	76	105	134	159	184	202	220	238	256		
26	42	77	106	136	161	186	205	224	242	260		
27	43	78	107	136	162	188	207	226	245	263		
28	43	77	107	137	163	189	208	227	246	265	282	300
29	43	78	108	138	164	190	209	229	249	268	287	305
30	43	78	108	138	164	190	210	229	250	270	290	309
31	43	78	108	139	165	192	212	232	252	272	293	313
32	43	78	109	139	166	193	214	234	254	274	295	316
33	43	78	109	140	167	194	215	236	256	276	297	319
34	43	78	109	140	167	195	216	237	257	277	299	321
35	43	79	110	141	169	197	219	240	260	281	303	325
36	44	79	111	142	171	199	220	242	263	284	306	327
37	44	79	111	143	172	200	222	244	265	287	309	330
38	44	79	111	143	172	201	223	245	267	289	311	332
39	44	79	111	144	173	202	224	246	268	290	312	334
40	44	79	112	144	173	202	225	248	269	290	312	334

Form Class 77 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	35	64	84	105	117	128						
11	37	67	88	109	124	140						
12	38	69	90	112	130	147						
13	39	72	94	117	136	154						
14	40	72	96	121	139	158	170	183				
15	40	73	98	123	144	163	178	192				
16	40	73	99	124	145	166	181	196				
17	41	75	101	127	149	171	187	203				
18	41	75	102	129	152	174	190	207				
19	42	76	104	131	154	177	194	211				
20	42	76	104	132	155	178	195	213	227	240		
21	42	77	105	133	157	181	198	216	231	246		
22	42	77	105	134	158	182	200	219	234	250		
23	43	78	107	136	161	186	204	222	239	256		
24	43	78	108	137	162	188	206	224	242	261		
25	43	79	109	138	164	190	208	228	246	264		
26	43	79	109	139	164	190	210	230	248	267		
27	44	80	110	140	167	193	213	233	252	272		
28	44	80	110	141	168	195	215	235	255	275	293	311
29	44	80	111	142	169	196	216	236	257	278	297	316
30	44	80	111	142	169	196	217	237	258	279	299	320
31	44	80	112	143	170	198	218	239	260	281	302	323
32	44	80	111	143	171	199	220	241	262	282	304	325
33	44	81	112	144	172	201	222	244	265	285	308	331
34	44	81	113	145	173	202	224	246	267	288	311	334
35	44	81	113	145	174	203	225	247	269	290	313	336
36	45	81	113	146	175	204	226	248	270	292	314	337
37	45	81	114	147	176	206	228	251	273	296	318	340
38	45	82	116	147	177	207	230	253	276	299	321	343
39	45	82	115	148	178	208	231	254	277	299	322	345
40	45	82	115	148	178	208	232	255	278	300	322	345

Form Class 78 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	36	66	88	108	121	134						
11	38	70	93	115	130	146						
12	39	71	94	117	135	153	163	175				
13	40	73	98	122	141	160	172	182				
14	40	73	98	124	143	163	175	187				
15	41	75	101	127	148	170	183	197				
16	42	76	102	129	151	173	189	204				
17	42	77	104	131	154	177	193	210				
18	42	77	104	132	155	178	195	212				
19	43	78	106	134	158	182	199	217				
20	43	78	107	136	160	184	202	220	234	249		
21	44	79	109	138	163	187	206	226	241	256		
22	44	80	110	140	165	190	209	229	245	262		
23	44	80	110	140	166	191	211	230	248	266		
24	44	80	110	140	167	193	212	230	249	268		
25	44	81	112	142	169	195	215	235	254	273		
26	45	81	112	143	170	197	217	238	258	277		
27	45	81	113	144	171	198	219	240	260	280		
28	45	81	113	144	172	199	220	240	261	281	300	318
29	45	82	114	146	173	201	222	243	264	285	305	325
30	45	82	114	146	174	202	223	244	266	288	309	330
31	45	82	115	147	176	204	226	248	270	291	313	335
32	46	83	115	148	177	206	228	251	272	293	316	338
33	46	83	116	148	177	207	229	252	273	295	318	341
34	45	83	116	148	178	207	230	252	274	296	320	343
35	46	83	116	149	179	209	232	255	277	300	323	346
36	46	83	117	150	180	210	234	257	279	302	325	348
37	46	83	117	151	181	211	235	258	281	305	328	351
38	46	83	117	151	181	212	236	259	283	306	329	352
39	46	84	118	152	183	213	237	261	285	308	331	354
40	46	84	118	152	183	214	239	263	286	309	332	356

Form Class 79 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	38	70	92	112	127	141						
11	40	73	96	118	135	152						
12	41	74	98	122	140	158	168	180				
13	42	76	102	127	147	166	178	191				
14	42	77	103	129	150	170	183	198				
15	43	77	104	130	152	175	190	206				
16	43	77	105	131	153	176	193	209				
17	43	79	107	135	158	182	199	216				
18	44	79	108	136	160	184	202	220				
19	44	80	109	138	163	188	206	225				
20	44	81	110	140	165	190	209	228	242	257		
21	45	82	112	142	168	193	213	232	248	265		
22	45	82	113	143	169	195	215	235	252	269		
23	45	83	114	145	171	198	218	238	257	275		
24	46	83	114	146	173	200	220	240	259	279		
25	46	83	114	146	174	201	222	242	262	282		
26	46	83	115	147	174	201	223	244	264	284		
27	46	83	116	148	176	204	225	247	267	288		
28	46	84	116	149	177	205	227	248	270	291	310	329
29	46	84	117	150	178	207	229	250	273	295	315	335
30	46	84	117	150	179	208	230	252	274	297	319	340
31	47	85	118	151	181	210	233	255	278	300	323	345
32	47	85	118	152	182	212	235	258	280	302	325	349
33	47	85	119	153	183	213	237	260	282	305	329	353
34	47	85	119	153	184	214	238	261	284	307	331	356
35	47	85	120	154	184	215	239	263	286	309	333	357
36	47	85	119	154	185	215	239	263	287	310	334	357
37	47	86	120	155	186	217	241	265	289	313	337	361
38	47	86	120	155	187	219	243	267	291	316	340	364
39	47	86	121	156	188	220	245	269	293	318	342	366
40	47	86	121	157	189	221	246	271	294	318	343	367

Form Class 80 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	39	72	94	116	132	147						
11	41	74	97	121	140	158						
12	41	75	99	125	143	162	173	186				
13	42	77	104	130	150	169	182	197				
14	43	78	105	132	154	174	188	202				
15	44	80	108	135	158	180	196	212				
16	44	80	108	136	160	183	201	219				
17	45	81	110	139	164	188	206	225				
18	45	82	111	140	165	190	209	228				
19	45	82	113	143	169	194	213	232				
20	46	83	114	144	170	196	216	235	250	266		
21	46	84	115	146	172	199	219	239	256	273		
22	46	84	115	147	174	200	221	242	260	278		
23	47	85	117	148	176	203	224	245	264	283		
24	47	85	117	149	177	205	226	246	266	286		
25	47	85	118	151	179	207	229	250	271	291		
26	47	86	118	151	180	208	230	253	274	295		
27	47	86	119	153	181	210	233	255	277	298		
28	47	86	119	153	182	212	234	257	279	301	320	340
29	48	86	120	154	184	213	236	258	281	304	325	346
30	48	86	120	155	184	214	237	259	283	306	329	351
31	48	87	121	155	186	216	239	263	286	309	332	356
32	48	87	121	156	187	217	241	265	288	311	335	359
33	48	87	122	157	188	219	243	267	290	313	338	363
34	48	87	122	157	188	220	244	268	292	315	340	366
35	48	88	123	158	190	221	246	271	294	318	343	368
36	48	88	123	159	191	222	247	272	296	321	345	370
37	48	88	124	159	192	224	249	274	299	324	348	373
38	48	88	124	160	192	225	250	275	301	326	351	375
39	49	88	124	160	193	226	252	277	302	327	352	377
40	49	88	125	161	194	227	253	279	303	328	353	378

Form Class 82 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	41	75	99	123	139	156						
11	43	79	103	129	149	167						
12	43	79	104	131	152	172	185	198				
13	45	81	109	137	159	181	195	210				
14	45	82	111	140	163	186	201	216				
15	46	83	113	143	166	191	208	225				
16	46	84	113	143	168	194	212	231				
17	47	86	117	147	173	199	219	239				
18	48	87	118	150	177	203	223	244				
19	48	87	119	151	179	206	227	247				
20	48	87	120	152	180	208	228	249	266	283		
21	48	88	121	154	182	210	231	253	271	290		
22	48	88	121	155	183	211	234	256	275	294		
23	49	89	123	157	186	215	237	259	280	301		
24	49	90	124	158	188	218	240	262	284	305		
25	49	90	124	159	189	219	242	265	288	310		
26	49	90	125	160	190	220	244	268	290	312		
27	50	91	126	161	192	223	247	271	294	317		
28	50	91	126	162	194	225	249	273	297	321	342	363
29	50	91	127	163	195	226	250	274	299	324	346	369
30	50	91	127	163	195	227	251	275	301	326	349	373
31	50	91	128	164	196	228	253	278	303	328	352	377
32	50	91	128	164	196	229	254	280	304	329	354	380
33	50	92	128	165	198	231	257	283	307	332	359	385
34	51	92	129	166	199	233	259	285	310	335	362	389
35	51	92	130	167	200	234	260	287	312	337	364	391
36	51	92	130	167	201	235	261	288	313	339	366	392
37	51	93	130	168	203	237	264	291	317	344	370	396
38	51	93	131	169	204	239	266	293	320	347	373	400
39	51	93	129	169	204	239	267	294	321	348	374	401
40	51	93	131	170	205	239	267	295	321	348	375	401

Form Class 83 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	42	77	103	127	143	161						
11	45	82	108	133	155	174						
12	46	83	110	138	159	181	195	209				
13	47	85	113	141	165	188	203	218				
14	46	84	114	143	167	191	207	223				
15	48	86	117	147	172	197	215	233				
16	48	87	118	149	175	201	221	240				
17	48	88	119	151	178	204	225	245				
18	48	88	120	152	179	206	227	247				
19	49	89	122	155	183	210	232	253				
20	49	89	123	156	185	213	235	257	274	292		
21	50	91	125	159	188	217	240	263	281	300		
22	50	91	126	160	190	220	243	266	286	306		
23	50	92	127	162	192	222	245	268	289	310		
24	50	91	127	162	192	223	246	268	291	313		
25	51	92	128	164	195	226	250	274	297	319		
26	51	93	129	165	196	227	252	277	300	324		
27	51	93	129	165	197	229	254	278	302	326		
28	51	92	129	165	197	229	254	279	303	328	349	371
29	51	93	130	167	199	231	257	281	307	332	355	379
30	51	93	130	168	200	233	258	283	309	335	360	385
31	52	94	131	169	202	235	261	287	313	339	364	390
32	52	94	132	170	204	237	264	290	316	341	368	394
33	52	94	132	170	204	238	265	291	317	343	370	397
34	52	94	132	170	204	238	265	292	318	343	371	399
35	52	95	133	171	206	240	268	295	321	348	375	403
36	52	95	133	172	207	242	269	297	324	350	378	405
37	52	95	133	172	208	243	270	298	325	353	380	407
38	52	95	133	172	208	244	271	299	327	355	382	409
39	52	95	134	173	209	245	273	302	329	356	384	411
40	52	95	135	174	210	246	275	304	331	358	385	413

Form Class 84 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	43	79	105	130	149	167						
11	45	82	109	138	158	179						
12	46	84	112	141	163	185	199	214				
13	48	87	117	147	169	193	210	226				
14	48	87	118	149	174	198	215	232				
15	48	88	119	151	177	203	222	241				
16	48	88	120	151	178	205	225	245				
17	50	90	123	155	183	211	232	253				
18	50	91	123	157	185	214	235	257				
19	50	91	126	160	189	218	239	266				
20	50	92	127	161	190	220	242	264	283	301		
21	51	93	128	163	193	223	247	270	290	310		
22	51	93	129	165	195	226	249	274	294	315		
23	52	94	130	166	198	229	253	277	299	321		
24	52	94	131	167	199	231	254	278	301	325		
25	52	95	131	168	200	232	257	281	305	328		
26	52	94	131	168	200	232	257	283	307	330		
27	52	95	132	169	202	235	260	286	311	335		
28	52	95	132	170	203	236	262	288	313	338	360	383
29	53	96	134	171	205	238	264	290	316	342	367	391
30	53	96	134	172	206	239	265	291	318	345	371	396
31	53	96	135	173	207	242	268	295	322	348	375	401
32	53	96	135	174	209	243	271	298	335	350	377	405
33	53	97	136	175	210	245	273	300	327	353	381	410
34	53	97	136	175	210	246	274	302	329	356	384	413
35	53	97	136	176	211	247	275	303	330	358	386	414
36	53	97	136	176	212	247	276	304	331	359	387	415
37	53	97	137	177	213	249	278	306	334	363	391	419
38	53	97	137	177	214	251	279	308	337	366	394	421
39	54	97	138	178	215	252	281	310	339	367	395	424
40	54	98	138	179	216	253	282	312	340	368	396	425

Form Class 85 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	45	83	110	136	154	172						
11	47	85	114	143	164	185						
12	48	87	116	145	168	191	206	220				
13	49	89	119	150	175	200	216	232				
14	49	89	121	153	178	203	221	238				
15	50	91	123	156	183	210	228	248				
16	50	91	124	157	185	213	234	254				
17	51	93	126	160	189	217	239	262				
18	51	93	127	161	190	220	242	265				
19	51	94	129	164	194	224	247	270				
20	52	94	129	165	195	226	249	272	292	311		
21	52	95	131	167	198	229	253	278	298	318		
22	52	95	132	168	199	231	256	281	302	323		
23	53	96	133	170	202	234	259	284	307	330		
24	53	96	134	171	204	236	261	285	309	334		
25	53	97	135	173	206	238	264	289	314	338		
26	53	97	135	173	206	239	266	292	317	342		
27	54	97	136	174	208	242	268	295	320	346		
28	54	98	136	175	209	243	270	297	323	349	372	395
29	54	98	137	176	210	245	272	298	326	353	377	402
30	54	98	137	177	211	246	273	299	327	355	381	408
31	54	99	138	178	213	248	276	303	331	358	385	412
32	54	99	138	178	214	249	277	306	333	359	388	416
33	54	99	139	179	215	251	279	308	335	362	391	420
34	54	99	139	179	216	252	280	309	337	364	394	424
35	55	99	140	180	217	253	283	312	340	368	397	426
36	55	99	140	181	218	254	284	313	342	370	399	428
37	55	100	141	182	219	256	286	315	344	374	403	431
38	55	100	141	182	220	258	287	317	347	376	405	434
39	55	100	141	183	221	259	289	319	348	378	407	436
40	55	100	142	183	221	259	290	321	349	378	408	437

Form Class 75 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	25	46	59	70								
11	28	52	65	79								
12	29	54	69	84	94	106						
13	31	56	74	91	104	116						
14	32	59	77	95	109	123	131	139				
15	33	60	80	99	115	130	140	150				
16	34	62	82	102	118	135	146	158				
17	35	63	84	105	123	140	152	165				
18	35	64	86	108	126	143	156	169				
19	36	65	88	111	130	148	162	175				
20	36	66	89	113	132	152	165	178	189	200		
21	37	67	91	115	135	155	169	183	196	207		
22	37	67	92	116	136	157	172	187	199	212		
23	37	68	93	118	139	160	175	190	204	218		
24	38	69	94	119	141	162	177	192	207	222		
25	38	69	95	121	143	164	181	197	212	227		
26	38	70	96	122	144	166	183	200	216	231		
27	39	70	97	123	146	168	185	202	219	235		
28	39	71	97	124	147	170	187	204	221	238	253	268
29	39	71	98	126	149	172	189	206	224	242	258	274
30	39	72	99	126	150	173	191	208	226	244	262	280
31	40	72	100	127	152	176	194	212	230	247	266	284
32	40	72	100	128	152	177	196	214	232	249	268	287
33	40	73	101	129	154	179	198	217	234	252	272	291
34	40	73	101	130	155	180	199	218	236	254	275	295
35	40	73	102	131	156	182	201	220	239	258	278	297
36	40	73	102	131	157	183	202	222	241	260	280	299
37	40	73	103	132	158	185	204	224	244	263	283	303
38	40	74	103	133	159	186	206	225	245	266	285	305
39	41	74	104	133	160	187	207	228	247	267	287	307
40	41	74	104	134	161	188	208	229	249	268	288	308

Form Class 76 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	26	48	61	73	81	88						
11	28	52	67	82	91	102						
12	30	55	71	87	98	110						
13	32	59	76	93	106	119						
14	33	60	79	98	112	126	135	142				
15	35	63	83	104	120	135	146	157				
16	35	65	86	108	125	142	153	166				
17	36	66	88	110	129	147	160	173				
18	36	66	89	112	131	150	163	177				
19	37	67	91	115	134	154	168	182				
20	37	68	92	117	137	156	171	185	196	207		
21	38	69	93	118	139	160	175	190	202	214		
22	38	69	94	119	140	161	177	193	206	219		
23	39	70	96	121	143	164	180	196	210	224		
24	39	70	97	123	145	167	182	198	213	228		
25	39	72	98	125	147	170	187	203	219	235		
26	40	72	99	126	149	173	190	208	224	240		
27	40	72	100	127	151	175	192	210	227	244		
28	40	73	101	128	152	176	194	211	229	247	263	278
29	40	73	101	130	154	178	195	213	232	250	267	285
30	40	74	102	130	155	179	197	215	234	253	271	289
31	41	74	103	131	156	181	200	218	237	255	272	293
32	41	74	103	132	157	182	202	221	239	257	277	297
33	41	75	104	133	158	184	204	223	242	260	281	301
34	41	75	104	133	159	185	205	224	243	262	283	304
35	41	75	105	135	161	188	208	228	247	266	287	308
36	42	76	106	136	163	189	210	230	250	270	290	310
37	42	76	106	136	164	191	211	232	252	273	293	313
38	42	76	106	137	164	192	212	233	254	275	296	316
39	42	76	107	137	165	193	214	235	256	276	297	318
40	42	76	107	138	166	194	215	237	257	277	298	319

Form Class 77 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	27	50	62	77	84	90						
11	30	55	70	85	96	106						
12	32	57	74	90	102	115						
13	33	61	79	98	112	126						
14	34	63	82	103	118	133	142	151				
15	35	64	86	107	124	140	151	161				
16	36	65	87	109	126	144	156	168				
17	37	67	90	113	132	151	164	178				
18	38	69	92	116	136	156	170	184				
19	38	70	95	119	139	160	174	189				
20	39	70	95	121	141	162	177	192	204	216		
21	39	71	97	122	144	165	181	196	209	222		
22	39	71	97	123	145	166	183	199	213	226		
23	40	72	99	126	148	171	187	203	219	233		
24	40	73	100	127	150	173	190	206	222	239		
25	40	73	101	129	152	176	193	210	227	243		
26	41	74	102	129	153	177	195	213	230	247		
27	41	75	103	131	155	180	198	216	234	252		
28	41	75	103	132	157	182	200	219	238	256	272	288
29	42	75	105	134	159	184	202	221	240	259	277	294
30	42	76	105	134	159	185	203	222	242	261	280	299
31	42	76	106	135	161	187	206	225	245	264	284	303
32	42	76	106	135	162	188	208	228	247	266	286	306
33	42	77	107	137	163	190	210	230	250	269	290	312
34	42	77	107	138	165	191	212	233	252	272	294	316
35	43	77	108	139	166	193	214	235	255	275	296	318
36	43	77	108	139	166	194	215	236	257	277	298	319
37	43	78	109	140	168	196	218	239	260	281	302	323
38	43	78	110	141	170	198	219	241	263	285	306	327
39	43	78	110	142	170	199	221	243	264	286	307	328
40	43	78	110	142	171	199	222	244	265	286	308	329

Form Class 78 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	28	51	66	81	88	95						
11	32	58	74	91	102	112						
12	33	60	78	96	108	121	127	135				
13	35	63	83	102	116	130	139	148				
14	36	65	86	107	122	137	146	155				
15	37	67	89	111	128	145	157	168				
16	37	68	91	114	133	151	164	177				
17	38	69	93	117	137	156	170	183				
18	38	70	94	118	138	159	173	187				
19	39	71	97	122	143	164	179	194				
20	40	72	98	124	145	167	183	198	211	223		
21	40	73	100	126	149	171	187	204	218	231		
22	40	74	101	128	151	174	191	208	223	237		
23	41	74	102	130	153	176	194	211	226	242		
24	41	75	103	130	154	178	195	212	229	245		
25	42	76	104	133	157	181	199	217	235	252		
26	42	76	105	134	159	183	202	221	239	257		
27	42	77	106	135	160	185	204	223	241	260		
28	42	77	106	135	161	186	205	224	243	262	279	295
29	42	77	107	137	163	189	208	227	247	267	285	303
30	43	78	108	138	164	190	210	229	250	270	290	309
31	43	78	109	140	166	193	213	234	254	274	294	315
32	43	79	110	140	168	195	216	237	257	276	298	319
33	43	79	110	141	169	196	217	238	258	279	300	322
34	43	79	110	142	169	197	218	239	260	280	303	325
35	44	79	111	143	171	199	221	242	263	284	306	328
36	44	80	112	144	172	200	223	245	266	287	309	331
37	44	80	112	144	173	202	224	246	268	290	311	333
38	44	80	112	144	174	203	225	247	269	292	313	335
39	44	80	113	145	175	204	227	249	272	294	316	338
40	44	81	113	146	176	205	229	252	273	295	317	340

Form Class 79 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	29	53	68	83	92	101						
11	32	58	76	93	103	115						
12	34	61	79	98	112	125	133	139				
13	36	65	86	106	122	137	145	154				
14	37	67	90	111	127	144	154	165				
15	38	69	91	115	133	151	163	175				
16	38	70	93	117	136	155	168	181				
17	39	71	96	121	141	161	175	190				
18	40	72	97	123	144	165	180	195				
19	40	73	100	126	148	170	186	201				
20	41	74	101	128	150	172	189	205	218	231		
21	41	75	102	130	153	176	193	211	225	239		
22	41	75	103	132	155	179	196	215	230	245		
23	42	77	105	134	158	182	200	219	235	251		
24	43	77	106	135	160	185	203	221	239	256		
25	43	78	107	137	161	187	206	224	242	261		
26	43	78	107	137	162	188	207	227	245	263		
27	43	79	109	139	165	190	210	230	249	268		
28	43	79	109	140	166	192	212	232	252	271	289	306
29	44	80	111	141	168	195	215	235	256	276	295	314
30	44	80	111	143	169	196	217	237	258	280	300	320
31	44	81	112	144	171	199	220	241	262	283	304	325
32	45	81	113	144	173	201	223	244	264	285	307	329
33	45	81	113	145	174	203	224	247	268	288	311	334
34	45	82	114	146	175	204	226	248	270	291	314	338
35	45	81	114	147	176	205	227	250	271	293	316	339
36	45	81	114	147	176	205	228	251	272	294	317	340
37	45	82	115	148	178	207	230	253	276	298	321	344
38	45	82	115	149	179	209	232	255	278	301	324	346
39	45	83	116	149	180	210	234	258	280	303	326	349
40	46	83	117	150	181	211	236	260	282	304	328	351

Form Class 80 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	30	55	70	86	95	105						
11	33	61	79	97	109	121						
12	35	64	83	102	116	130	138	147				
13	37	67	89	110	126	141	151	161				
14	38	69	92	114	131	148	159	169				
15	39	72	95	119	138	157	170	182				
16	40	72	97	122	142	162	176	190				
17	41	74	99	125	146	168	183	198				
18	41	74	101	127	149	171	187	203				
19	41	75	103	130	152	175	192	209				
20	42	76	104	132	155	178	195	212	226	239		
21	42	77	106	134	158	181	200	218	232	247		
22	43	77	106	135	159	183	202	221	237	252		
23	43	78	108	137	162	187	206	225	242	259		
24	43	79	109	139	164	190	208	227	245	263		
25	44	80	110	141	167	193	212	231	250	269		
26	44	80	111	142	168	194	214	235	254	273		
27	45	81	112	143	170	197	218	238	258	278		
28	45	81	113	144	172	199	220	241	261	281	299	318
29	45	82	114	146	173	201	222	243	264	285	305	324
30	45	82	114	146	174	202	223	244	266	288	309	330
31	46	83	115	148	176	205	226	248	270	291	313	335
32	46	83	116	149	178	207	229	251	272	294	316	339
33	46	83	116	149	179	208	231	253	275	297	320	343
34	46	83	117	150	180	209	232	255	277	299	323	347
35	46	84	117	151	181	211	234	257	280	302	326	349
36	46	84	118	151	182	212	236	259	269	305	328	351
37	46	84	118	152	183	214	238	261	285	309	332	355
38	46	85	119	153	184	216	239	263	287	311	335	358
39	47	85	119	154	185	217	241	265	289	313	336	360
40	47	85	120	154	186	218	242	267	290	314	338	362

Form Class 81 - International 1/4" Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	40	73	95	119	136	150						
11	42	76	100	124	143	161						
12	42	76	102	127	147	166	178	191				
13	43	78	105	132	153	174	188	202				
14	44	80	107	135	156	178	193	207				
15	45	82	110	139	162	186	202	219				
16	45	82	112	141	166	190	208	226				
17	46	84	114	143	169	194	213	232				
18	46	84	114	145	170	196	215	235				
19	46	84	116	147	173	199	220	239				
20	47	85	117	148	175	201	222	242	258	274		
21	47	86	118	150	177	205	226	246	264	281		
22	47	86	118	151	179	206	227	249	267	286		
23	48	87	119	152	180	209	230	251	271	291		
24	48	87	120	153	182	210	231	252	273	294		
25	48	87	121	155	184	213	235	257	279	301		
26	48	88	122	156	186	215	238	261	283	305		
27	49	88	123	157	187	217	240	264	286	309		
28	49	88	123	158	188	218	242	265	288	311	331	352
29	49	89	123	158	189	219	243	266	290	314	336	358
30	49	89	124	159	190	220	0	267	292	316	339	362
31	49	89	124	160	191	222	246	270	294	318	342	366
32	49	89	124	160	191	223	248	273	296	320	344	369
33	49	89	125	161	192	224	249	274	298	322	347	373
34	49	89	125	161	193	225	250	275	299	323	350	376
35	49	90	126	162	195	227	253	278	303	328	354	380
36	50	90	127	163	196	229	255	281	306	331	357	382
37	50	90	127	164	197	231	257	283	309	334	360	385
38	50	90	127	164	198	232	258	284	310	337	362	387
39	50	91	128	165	199	233	259	286	311	337	363	389
40	50	91	128	165	199	233	260	287	312	338	364	390

Form Class 82 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	32	59	77	94	105	116						
11	35	64	83	103	117	130						
12	36	66	87	107	122	139	148	155				
13	39	71	93	116	135	152	163	173				
14	40	73	97	122	140	159	171	183				
15	41	75	101	126	147	167	181	195				
16	42	76	102	129	151	172	187	202				
17	43	78	105	133	156	179	196	212				
18	44	79	108	136	160	184	202	219				
19	44	80	109	138	163	188	205	224				
20	44	80	110	139	164	189	208	227	241	256		
21	45	82	112	141	167	193	212	231	247	263		
22	45	82	112	143	169	195	215	235	252	268		
23	46	83	114	146	172	199	219	239	258	276		
24	46	84	115	147	175	202	222	242	262	282		
25	46	84	116	149	176	204	225	247	267	287		
26	46	84	117	150	178	205	227	249	270	291		
27	47	86	119	152	180	209	231	254	275	296		
28	47	86	120	153	183	212	234	257	279	300	320	340
29	48	87	120	154	184	213	236	259	281	304	326	347
30	48	87	121	155	185	214	237	260	283	307	329	352
31	48	87	121	156	186	216	240	263	286	309	333	356
32	48	87	122	156	187	217	242	266	288	311	335	359
33	48	88	123	158	189	220	244	269	292	315	340	365
34	48	88	123	158	190	222	246	271	294	318	344	370
35	49	88	124	159	191	223	248	273	297	321	346	372
36	49	88	124	160	192	224	249	274	299	323	348	373
37	49	89	125	161	194	227	252	277	303	328	353	378
38	49	89	126	162	195	229	254	280	306	332	357	381
39	49	90	126	163	196	229	256	282	307	332	358	383
40	49	89	126	163	196	230	256	283	308	333	358	384

Form Class 83 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	33	61	79	97	108	119						
11	37	67	88	108	121	136						
12	39	70	92	113	130	148	158	167				
13	41	74	98	122	140	159	169	180				
14	41	75	100	125	144	164	176	189				
15	43	77	104	130	152	173	188	202				
16	43	79	106	134	156	178	195	211				
17	44	80	109	137	161	184	201	218				
18	44	80	109	138	163	187	204	222				
19	45	82	112	141	167	192	210	229				
20	45	83	113	144	170	195	215	233	249	264		
21	46	84	115	146	173	200	220	240	257	274		
22	47	85	117	149	176	202	224	245	263	281		
23	47	85	118	150	178	205	226	248	267	286		
24	47	86	118	151	179	207	228	249	269	289		
25	47	86	119	153	181	210	232	254	275	296		
26	48	87	121	154	183	212	235	258	280	301		
27	48	88	122	156	185	214	237	260	282	305		
28	48	88	122	156	186	216	239	262	285	307	328	348
29	49	89	123	158	188	219	242	265	289	312	334	356
30	49	89	124	159	190	221	244	267	292	316	339	362
31	49	90	125	161	192	223	248	272	296	320	344	368
32	49	90	126	162	194	225	251	275	299	323	348	373
33	49	90	126	162	194	226	252	277	301	325	351	377
34	49	90	126	162	195	227	253	278	302	326	353	380
35	50	90	127	164	197	229	255	281	306	331	357	383
36	50	91	128	165	198	231	257	283	309	334	360	385
37	50	91	128	165	199	233	259	285	311	337	363	376
38	50	91	128	165	199	234	260	286	313	339	365	391
39	50	91	129	166	201	235	262	289	315	341	367	394
40	50	92	130	167	202	236	264	291	317	343	369	396

Form Class 84 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	34	62	81	101	114	125						
11	38	68	91	112	127	143						
12	39	71	94	117	135	152	161	171				
13	42	76	101	126	145	164	176	188				
14	43	78	104	130	151	171	185	198				
15	44	79	106	134	156	178	194	209				
16	44	80	108	135	158	181	199	216				
17	45	81	110	140	164	188	206	225				
18	45	83	113	143	168	193	212	230				
19	46	84	115	146	172	198	218	237				
20	47	85	117	148	174	201	222	242	257	273		
21	47	86	118	151	178	206	226	248	265	282		
22	47	86	120	152	180	208	230	251	270	288		
23	48	88	121	155	183	212	234	255	275	296		
24	49	89	122	156	186	215	237	258	279	301		
25	49	89	123	157	187	217	239	262	284	305		
26	49	89	123	158	187	217	241	264	286	308		
27	49	90	125	160	190	220	244	268	291	314		
28	50	90	126	161	192	223	246	270	294	318	338	359
29	50	91	127	163	194	225	249	274	298	322	345	367
30	50	91	127	164	195	227	251	276	301	326	350	374
31	51	92	128	165	197	230	255	280	305	330	355	380
32	51	92	129	166	198	231	257	283	308	332	358	384
33	51	92	130	167	200	233	259	285	310	335	362	389
34	51	93	130	167	201	235	261	287	312	338	365	393
35	51	93	130	168	202	232	262	289	315	341	367	394
36	51	93	131	168	202	237	263	290	316	342	369	395
37	51	93	131	169	204	239	266	293	320	346	373	400
38	51	94	132	170	205	240	268	295	322	350	376	403
39	52	94	132	171	206	242	270	297	325	352	379	405
40	52	94	133	172	207	243	271	300	326	353	380	407

Form Class 85 - Scribner Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	36	66	86	106	119	132						
11	39	71	94	115	132	149						
12	41	74	97	121	139	157	167	177				
13	42	77	102	128	149	169	181	193				
14	43	79	106	133	154	176	190	204				
15	45	82	109	138	161	184	201	217				
16	45	82	112	140	165	189	206	224				
17	46	84	114	145	170	196	214	232				
18	47	85	116	147	173	199	219	238				
19	48	86	118	150	177	203	224	244				
20	48	87	119	152	179	206	228	249	265	282		
21	49	88	121	154	182	211	233	255	273	291		
22	49	89	122	156	185	213	236	258	278	297		
23	49	90	124	158	188	217	240	262	283	304		
24	50	90	125	160	190	220	242	265	287	309		
25	50	91	126	162	192	223	247	270	292	315		
26	50	91	127	163	194	225	249	274	296	319		
27	51	92	128	165	196	228	252	277	301	324		
28	51	93	129	166	198	230	254	279	304	328	350	371
29	51	93	130	167	199	232	257	282	307	333	356	379
30	52	94	131	168	201	233	259	284	310	336	360	385
31	52	94	132	169	202	236	262	288	313	339	365	391
32	52	94	132	170	204	237	264	291	316	341	368	394
33	52	95	133	171	205	239	266	293	319	344	372	399
34	52	95	133	171	206	240	267	295	321	347	375	403
35	52	95	134	173	207	242	270	297	324	350	378	406
36	52	95	134	173	208	244	271	299	326	353	381	408
37	53	96	135	174	210	246	274	302	329	357	385	412
38	53	96	135	175	211	247	275	304	332	360	388	415
39	53	96	136	176	212	249	277	306	334	362	390	418
40	53	96	136	176	213	249	279	308	335	363	391	419

Form Class 75 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	12	22	26	29								
11	15	27	33	39								
12	18	32	40	47	51	56						
13	20	37	46	55	61	67						
14	22	39	51	61	67	75	79	81				
15	24	43	55	68	77	85	90	95				
16	25	46	59	72	82	92	99	105				
17	27	49	63	79	90	101	108	116				
18	28	51	67	83	95	107	115	123				
19	30	54	71	88	102	115	124	132				
20	31	56	73	92	106	120	129	139	146	154		
21	32	57	77	96	112	126	137	147	156	164		
22	33	59	79	99	115	131	143	154	163	172		
23	34	61	82	103	120	137	149	160	171	182		
24	34	62	84	106	124	142	153	165	176	189		
25	35	64	87	109	128	146	159	172	184	197		
26	36	65	88	112	131	150	164	178	191	203		
27	37	66	91	115	135	155	169	183	197	210		
28	37	68	92	117	138	158	173	187	202	216	229	242
29	38	69	94	119	141	162	177	###	207	223	237	252
30	38	70	95	121	143	165	180	195	211	228	244	260
31	39	71	97	124	146	168	184	201	217	233	249	267
32	39	72	99	125	148	172	189	205	221	237	255	273
33	40	73	100	127	151	175	192	209	226	242	261	280
34	40	73	101	129	153	177	195	213	230	247	266	285
35	41	74	103	131	156	181	199	217	234	252	271	290
36	41	75	104	133	158	183	202	220	238	256	275	294
37	42	76	105	134	160	186	205	224	243	262	281	300
38	42	76	106	136	162	189	208	227	247	266	285	305
39	42	77	107	137	164	191	211	231	250	269	289	309
40	43	78	108	139	166	193	213	234	253	272	292	312

Form Class 76 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3						
10	13	24	29	33	35	37						
11	17	30	36	42	45	49						
12	18	33	41	48	54	57						
13	21	38	48	58	63	69						
14	23	41	52	64	71	79	82	86				
15	25	46	59	72	81	90	95	101				
16	26	48	62	77	87	98	105	112				
17	28	51	67	83	95	107	114	123				
18	29	53	70	87	100	113	122	130				
19	31	56	74	91	106	120	129	139				
20	32	57	76	95	110	125	135	145	153	161		
21	33	59	80	100	116	131	142	153	162	171		
22	34	61	82	103	119	136	148	160	170	180		
23	35	63	85	107	125	142	154	166	177	189		
24	35	64	87	110	128	147	159	170	183	196		
25	36	66	90	114	133	152	166	179	192	206		
26	37	68	92	117	137	157	171	186	200	213		
27	38	69	94	119	140	161	176	191	205	220		
28	38	70	95	121	143	164	180	195	210	226	239	253
29	39	71	97	123	146	168	183	199	216	232	247	262
30	40	72	99	125	148	171	187	202	219	236	253	270
31	40	73	100	128	151	175	191	208	225	242	259	277
32	41	74	102	129	153	177	195	213	229	246	264	283
33	41	75	103	131	156	180	198	216	234	251	270	289
34	41	75	104	133	158	183	201	220	237	255	275	295
35	42	77	106	135	161	187	206	225	243	262	281	301
36	43	78	108	138	164	190	210	229	248	267	287	307
37	43	78	109	139	166	193	213	233	253	272	292	312
38	43	79	110	140	168	196	216	236	256	277	297	317
39	44	79	111	142	170	198	218	239	259	280	300	320
40	44	80	112	143	171	200	221	242	262	282	303	324

Form Class 77 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	14	26	29	35	37	39						
11	17	30	38	45	49	52						
12	19	34	43	51	56	61						
13	21	39	50	61	67	74						
14	24	43	55	67	75	83	88	92				
15	26	47	60	74	84	94	99	106				
16	27	49	65	79	90	101	108	115				
17	29	53	70	86	98	111	119	128				
18	31	55	73	91	104	118	128	137				
19	32	58	77	96	111	126	135	145				
20	33	60	79	99	115	131	141	152	160	168		
21	34	62	82	103	120	137	148	160	169	179		
22	35	63	85	106	124	141	153	166	176	187		
23	36	65	88	111	129	148	161	173	186	198		
24	37	67	90	114	134	153	166	179	193	206		
25	38	68	93	117	138	158	172	186	200	214		
26	38	69	94	120	141	161	176	191	206	220		
27	39	71	97	123	145	167	182	198	213	229		
28	40	73	99	126	148	171	187	203	219	235	249	264
29	41	74	101	128	151	174	191	207	224	241	257	273
30	41	74	102	130	153	177	194	210	228	246	263	280
31	41	75	103	132	156	180	198	216	233	251	269	287
32	42	76	105	133	158	183	202	220	237	254	273	293
33	42	77	106	136	162	187	206	225	243	261	281	301
34	43	78	108	138	164	190	210	229	248	266	287	308
35	43	79	109	140	167	193	213	233	252	271	247	312
36	44	80	110	141	168	196	216	236	256	275	296	316
37	44	81	112	143	171	199	220	241	261	282	302	323
38	45	81	113	145	174	203	224	244	266	287	308	329
39	45	82	114	147	176	205	226	248	269	290	311	332
40	45	82	115	148	177	206	228	250	271	292	314	335

Form Class 78 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	14	26	31	37	39	40						
11	18	33	41	49	53	58						
12	20	37	46	55	61	68	69	71				
13	23	41	52	64	72	79	83	87				
14	25	45	58	70	79	87	92	96				
15	27	49	64	78	88	99	104	111				
16	28	52	67	83	95	107	115	122				
17	30	55	72	89	102	116	124	133				
18	31	57	75	93	108	122	131	140				
19	33	60	79	99	114	130	140	151				
20	34	62	83	103	120	136	148	159	167	176		
21	35	64	86	108	126	143	156	168	178	188		
22	36	66	89	112	130	149	162	175	187	198		
23	37	68	92	115	135	154	168	181	194	206		
24	38	69	93	118	138	158	172	185	199	213		
25	39	71	96	122	143	164	179	194	208	223		
26	40	72	98	125	146	168	184	200	215	230		
27	40	73	100	127	150	172	189	205	221	237		
28	41	74	102	129	152	176	192	208	225	242	257	272
29	42	75	104	132	156	180	197	214	231	249	266	282
30	42	77	105	134	159	183	201	218	236	255	273	291
31	43	78	107	137	162	188	206	225	243	262	281	300
32	43	79	109	139	165	191	211	230	248	267	287	307
33	44	80	110	141	167	194	214	233	252	271	292	313
34	44	80	111	142	169	196	216	236	255	275	296	318
35	45	81	113	144	172	200	220	241	261	281	303	324
36	45	82	44	147	175	203	224	245	266	286	308	329
37	46	83	115	148	177	206	227	248	270	291	313	334
38	46	83	116	149	178	208	229	251	273	295	317	338
39	46	84	117	151	181	211	233	256	277	299	321	343
40	47	85	119	153	183	213	236	259	281	302	325	347

Form Class 79 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	15	28	33	39	40	44						
11	18	33	42	50	55	61						
12	21	38	48	57	64	70	73	75				
13	24	43	55	67	76	84	87	91				
14	26	47	60	74	83	93	97	103				
15	28	51	65	81	91	103	110	117				
16	29	53	69	85	97	110	118	127				
17	31	57	74	92	105	119	129	138				
18	32	59	78	97	112	127	137	147				
19	34	62	82	103	119	135	146	158				
20	35	64	85	107	124	141	153	165	174	183		
21	37	67	89	112	131	149	162	175	185	196		
22	38	68	92	116	135	154	168	182	193	205		
23	39	70	95	120	140	161	175	189	203	216		
24	39	72	97	123	144	166	180	195	209	224		
25	40	73	99	126	148	170	185	201	216	231		
26	41	74	101	128	150	173	189	206	221	237		
27	42	76	103	131	155	178	195	212	229	245		
28	42	77	105	134	158	182	199	217	235	252	267	283
29	43	78	107	137	161	186	204	222	240	259	276	294
30	44	79	109	139	164	189	208	226	245	265	283	302
31	44	80	111	141	168	194	213	232	252	271	291	310
32	45	81	112	143	170	197	218	238	257	276	297	317
33	45	82	114	146	173	201	222	242	262	282	303	325
34	46	83	115	147	176	204	225	246	266	286	309	332
35	46	84	117	149	178	206	228	250	270	291	313	336
36	46	84	117	150	179	208	230	252	274	295	317	339
37	47	85	119	152	182	212	234	257	279	301	323	345
38	47	86	120	154	184	215	238	260	283	306	328	351
39	48	87	121	156	187	218	241	264	287	310	333	356
40	48	87	122	157	189	220	244	268	290	313	336	359

Form Class 80 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	16	29	37	42	44	48						
11	20	36	45	53	58	64						
12	22	40	50	60	66	73	76	79				
13	25	46	58	69	78	87	91	96				
14	27	49	63	77	87	97	102	107				
15	29	52	69	85	96	108	115	122				
16	30	55	72	90	102	115	125	133				
17	32	58	77	97	111	126	136	146				
18	34	61	82	101	117	133	144	155				
19	35	64	85	107	124	141	153	165				
20	36	66	89	111	129	147	160	172	182	191		
21	38	68	92	116	135	154	168	181	192	203		
22	39	70	95	119	140	159	174	188	201	213		
23	40	72	98	123	145	166	181	196	210	223		
24	40	74	100	126	148	171	186	201	216	231		
25	41	75	103	130	153	176	192	208	224	240		
26	42	77	105	133	156	180	197	215	231	248		
27	43	78	107	136	161	185	203	221	238	255		
28	44	79	109	139	164	189	207	225	243	262	278	294
29	44	81	111	141	167	193	212	230	250	269	287	305
30	45	82	113	143	170	196	215	234	254	274	294	313
31	46	83	114	146	173	200	220	241	260	280	301	322
32	46	84	116	148	176	204	225	245	265	285	307	328
33	47	85	117	150	179	207	228	250	270	291	313	336
34	47	85	118	151	181	210	232	253	274	295	319	342
35	47	86	120	154	183	213	236	258	280	301	325	348
36	48	87	121	156	186	216	239	262	284	306	329	352
37	48	88	123	157	188	220	243	266	289	312	335	359
38	49	89	124	159	190	222	246	269	293	317	340	364
39	49	89	125	161	193	225	249	273	297	321	344	368
40	49	90	126	162	194	227	252	277	300	323	347	372

Form Class 81 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	17	31	37	44	48	50						
11	20	36	45	55	61	65						
12	22	41	51	62	69	75	79	83				
13	25	46	59	72	80	89	94	100				
14	27	50	64	79	89	99	105	110				
15	30	55	72	88	100	113	121	129				
16	32	58	76	94	108	123	132	141				
17	34	61	81	100	116	132	142	153				
18	35	63	84	105	122	139	150	161				
19	36	66	88	111	129	147	160	172				
20	38	68	92	115	134	153	166	179	189	199		
21	39	71	95	120	140	160	174	188	200	211		
22	40	72	98	123	144	165	180	195	208	221		
23	41	74	101	127	149	171	187	202	216	231		
24	50	91	103	130	153	176	191	207	223	238		
25	43	78	106	134	158	182	199	216	233	250		
26	44	79	109	138	162	187	205	224	241	259		
27	44	81	111	141	166	192	211	230	248	266		
28	45	82	113	143	169	196	215	234	253	272	289	306
29	46	83	114	146	173	199	219	239	259	279	298	316
30	46	84	116	148	175	202	222	242	263	284	305	325
31	47	85	118	150	178	207	228	249	269	290	312	333
32	47	86	119	152	181	210	232	253	274	295	317	339
33	48	87	120	154	184	213	236	258	279	300	324	347
34	48	88	122	156	186	216	238	261	283	304	329	353
35	49	89	124	158	189	220	244	267	289	312	336	360
36	49	90	125	161	192	224	248	272	295	318	342	366
37	50	91	127	163	195	227	251	276	300	324	324	372
38	50	91	128	164	197	230	254	279	303	328	328	377
39	51	92	129	166	199	232	257	283	307	332	332	381
40	51	93	130	167	201	234	260	286	310	334	334	384

Form Class 82 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

Height in # of 16' Logs

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	18	33	40	48	51	55						
11	22	39	49	59	64	70						
12	24	43	55	66	74	80	84	88				
13	27	49	63	77	87	96	101	106				
14	29	52	68	84	95	106	112	119				
15	31	57	74	91	104	117	126	135				
16	33	59	78	97	112	126	136	145				
17	35	63	84	104	121	137	149	159				
18	36	66	88	110	128	146	157	169				
19	38	69	93	115	134	153	166	179				
20	39	71	95	119	139	158	172	186	197	208		
21	40	73	98	124	145	165	181	196	208	220		
22	41	74	101	127	149	170	186	202	215	228		
23	42	77	104	132	155	178	194	210	225	240		
24	43	78	107	136	160	183	200	217	233	250		
25	44	80	110	139	164	188	206	224	241	259		
26	45	81	111	141	167	192	211	230	248	265		
27	46	83	114	145	172	198	218	237	256	275		
28	46	84	116	148	176	203	223	243	263	283	301	318
29	47	86	118	151	178	206	227	247	268	289	309	328
30	48	86	119	152	181	209	230	251	273	294	315	336
31	48	87	121	155	184	213	235	257	278	300	322	344
32	49	88	122	156	186	216	239	261	283	304	327	350
33	49	90	124	159	190	221	244	267	289	311	335	360
34	50	91	126	161	193	224	248	271	294	317	342	367
35	50	91	127	163	195	227	251	276	299	322	347	372
36	51	92	129	165	197	230	254	279	303	327	351	376
37	51	93	130	167	201	234	259	284	309	334	359	384
38	52	94	132	169	203	237	263	288	314	340	365	390
39	52	95	133	171	205	239	266	292	318	343	369	394
40	52	95	133	172	207	241	268	295	320	345	371	397

Form Class 83 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

	Height in # of 16' Logs											
DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	18	33	40	48	51	57						
11	23	41	52	61	68	76						
12	25	46	59	70	79	87	92	96				
13	28	51	65	80	90	100	106	112				
14	30	54	71	87	98	110	116	123				
15	32	59	77	95	109	122	131	140				
16	34	62	82	101	116	132	142	153				
17	36	65	86	108	124	141	152	164				
18	37	67	89	112	130	148	160	173				
19	39	71	95	119	138	158	171	185				
20	40	73	98	123	144	165	179	193	205	216		
21	42	76	102	129	151	172	188	204	217	230		
22	43	77	105	133	155	178	195	212	227	241		
23	43	79	108	137	161	185	202	219	234	250		
24	44	81	110	140	164	189	206	223	241	258		
25	46	83	113	144	170	195	214	233	250	268		
26	46	84	116	147	173	200	220	239	258	277		
27	47	86	118	150	177	204	225	245	265	284		
28	47	86	119	152	180	208	228	249	269	290	308	327
29	48	88	121	155	184	213	234	255	276	298	318	339
30	49	89	123	157	187	216	238	260	282	305	327	348
31	50	91	125	160	191	221	244	267	289	312	335	358
32	50	92	127	163	194	225	249	273	295	317	342	366
33	51	92	128	164	196	228	252	276	299	322	348	373
34	51	93	129	166	198	230	255	279	303	326	352	378
35	52	94	131	168	201	234	259	285	309	333	359	385
36	52	95	133	171	204	238	263	289	314	339	365	390
37	53	96	134	172	206	241	267	293	318	344	370	396
38	53	96	134	173	208	243	269	295	322	349	375	401
39	53	97	136	175	211	246	273	300	327	353	380	406
40	54	98	138	177	213	249	276	304	330	356	383	410

Form Class 84 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

	Height in # of 16' Logs											
DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	19	35	44	51	55	59						
11	23	42	53	64	71	79						
12	26	47	60	73	82	90	94	99				
13	29	53	69	85	96	106	113	119				
14	31	57	75	92	105	117	125	132				
15	33	60	80	99	113	127	137	147				
16	35	63	83	103	119	135	146	157				
17	37	67	89	111	128	146	159	171				
18	38	70	93	117	135	154	168	181				
19	40	73	98	123	143	164	178	193				
20	41	75	101	128	149	171	186	201	213	225		
21	43	78	106	133	156	178	195	211	225	239		
22	44	80	108	137	160	184	202	220	234	249		
23	45	82	112	142	166	191	210	228	244	261		
24	46	83	114	145	171	197	215	233	252	270		
25	47	85	117	148	175	201	221	241	260	278		
26	47	86	118	150	178	205	226	246	265	285		
27	48	88	121	154	182	210	232	253	273	293		
28	49	89	123	157	186	215	236	258	279	301	320	339
29	50	90	125	160	190	219	242	264	286	309	330	351
30	50	92	127	162	192	223	245	268	292	315	338	360
31	51	93	129	165	196	228	251	275	298	322	346	370
32	52	94	130	167	199	232	256	279	304	327	352	377
33	52	95	132	170	203	236	261	286	310	334	360	386
34	53	96	134	171	205	239	264	290	314	339	366	393
35	53	97	135	173	207	241	268	294	319	344	371	398
36	53	97	136	175	209	244	270	297	322	348	375	401
37	54	98	137	177	212	248	274	301	328	355	382	408
38	54	99	139	178	214	251	278	305	333	361	387	414
39	55	100	140	180	217	254	282	310	337	365	392	419
40	55	100	141	182	219	256	285	314	341	368	396	424

Form Class 85 - Doyle Rule

Volume - Basal Area Ratio (V-BAR) in board feet

	Height in # of 16' Logs											
DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
10	20	37	46	55	59	64						
11	24	44	55	67	74	82						
12	27	48	61	75	84	94	99	103				
13	30	54	71	87	98	110	115	122				
14	32	58	76	94	107	120	127	135				
15	35	63	83	103	118	134	144	153				
16	36	66	87	108	125	143	154	166				
17	38	70	93	116	135	154	166	179				
18	40	72	97	121	141	161	175	189				
19	41	75	102	128	148	170	185	200				
20	43	78	105	132	154	177	193	209	221	234		
21	44	80	109	137	161	184	201	219	233	248		
22	45	82	111	141	165	190	209	227	242	258		
23	46	84	115	146	171	197	216	234	252	269		
24	47	86	117	149	176	203	221	240	259	278		
25	48	87	120	153	181	208	229	249	269	288		
26	49	89	122	156	184	213	234	257	276	296		
27	50	91	125	159	189	218	240	262	284	305		
28	50	92	127	162	192	222	245	267	290	312	332	352
29	51	93	129	165	195	0	250	273	296	320	342	363
30	52	94	130	167	199	230	253	277	301	326	349	373
31	53	95	133	170	202	234	259	284	308	332	357	382
32	53	96	134	172	205	238	264	289	313	338	363	389
33	54	98	136	174	208	242	268	294	319	344	371	398
34	54	98	137	176	210	245	271	298	323	349	377	405
35	55	99	139	178	214	249	276	303	329	355	383	411
36	55	100	140	180	216	252	279	307	334	361	388	416
37	56	101	142	182	219	256	284	311	339	367	395	423
38	56	102	143	184	221	259	287	315	344	373	401	428
39	56	103	144	186	224	261	290	320	348	377	405	433
40	57	103	145	187	225	264	293	323	351	379	408	437

Pennsylvania Black Cherry Volume-Basal Area Ratios
(This table is representative of well-formed trees)
International 1/4" Rule Board Feet per Square Foot of Basal Area

	Merchantable Height in 16-Foot Bolts Above Stump Height												
DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
8	75	97	123	146	172	195	221	247	269				
9	63	88	113	138	163	186	211	236	261				
10	57	81	106	130	156	180	204	229	253				
11	52	76	102	126	150	174	199	224	249	273	297		
12	48	73	97	122	147	171	195	220	245	269	294		
13	45	69	94	118	143	168	192	217	242	266	291		
14	42	67	92	116	141	166	190	214	240	264	288		
15	41	65	90	114	139	164	188	213	237	262	286		
16		64	88	113	138	162	186	211	236	260	285	310	334
17		62	87	112	136	161	185	210	234	259	284	308	333
18		61	86	110	135	160	184	209	233	258	283	307	332
19		60	85	109	134	159	183	208	232	257	282	306	331
20		60	84	109	133	158	183	207	232	256	281	306	330
21			83	108	133	157	182	206	231	255	280	305	329
22			83	107	132	157	181	206	230	255	279	304	329
23			82	107	131	156	181	205	230	254	279	303	328
24			82	106	131	155	180	205	229	254	278	303	328
25			81	106	131	155	180	204	229	254	278	303	327
26				106	130	155	179	204	229	253	278	302	327
27				105	130	155	179	204	228	253	277	302	327
28				105	130	154	179	203	228	253	277	302	326
29				105	129	154	178	203	228	252	277	302	326
30				105	129	154	178	203	228	252	277	301	326
31				104	129	154	178	203	227	252	276	301	326
32				104	129	153	178	202	227	252	276	301	325
33				104	129	153	178	202	227	252	276	301	325
34				104	128	153	178	202	227	251	276	300	325
35				104	128	153	177	202	227	251	276	300	324
36				104	128	153	177	202	227	251	276	300	325

Pennsylvania Hard Maple Volume-Basal Area Ratios
(This table is representative of well-formed trees)
International 1/4" Rule Board Feet per Square Foot of Basal Area

DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
8	49	77	103	132	161	186	215	244	269				
9	45	72	100	129	156	183	211	238	267				
10	42	70	97	125	154	182	209	237	264				
11	41	68	96	124	152	179	206	234	262	290	317		
12	40	66	94	122	150	177	205	233	260	288	316		
13	38	65	93	121	149	176	204	231	259	287	315		
14	37	65	93	120	148	175	203	230	258	286	314		
15	36	64	91	119	147	175	202	230	258	285	313		
16		63	91	118	146	174	204	229	257	285	313	340	368
17		63	90	118	146	173	201	229	256	284	312	340	367
18		62	90	118	146	173	200	228	256	284	311	339	366
19		62	89	117	145	173	200	228	256	283	311	339	366
20		61	89	117	144	172	200	228	256	283	311	339	366
21			89	116	144	172	200	228	255	283	310	338	366
22			89	116	144	172	199	227	255	282	310	338	365
23			88	116	144	172	199	227	255	282	310	337	365
24			89	116	144	171	199	227	255	282	310	337	365
25			88	116	144	171	199	227	254	282	310	337	365
26				116	144	171	199	226	254	282	309	337	365
27				116	143	171	199	226	254	282	309	337	365
28				116	143	171	198	226	254	282	309	337	365
29				115	143	171	199	226	254	281	309	337	365
30				115	143	171	198	226	254	281	309	337	364
31				115	143	171	198	226	254	281	309	337	364
32				115	143	171	198	226	254	281	309	337	364
33				115	143	171	198	226	254	281	309	336	364
34				115	143	170	198	226	253	281	309	336	364
35				115	143	170	198	226	253	281	309	336	364
36				115	143	170	198	226	253	281	309	336	364

Pennsylvania Northern Red Oak Volume-Basal Area Ratios
(This table is representative of well-formed trees)
International 1/4" Rule Board Feet per Square Foot of Basal Area

	Merchantable Height in 16-Foot Bolts Above Stump Height												
DBH	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
8	43	72	100	129	155	183	212	241	269				
9	41	68	97	125	154	181	211	238	267				
10	39	68	95	125	152	180	209	237	266				
11	38	67	94	123	152	179	208	237	264	293	321		
12	37	65	93	122	150	178	206	234	264	292	320		
13	36	64	92	121	150	178	206	235	263	291	319		
14	36	64	92	121	149	177	205	234	262	290	318		
15	35	64	91	120	148	177	205	233	262	290	318		
16		63	91	120	145	176	204	233	261	290	318	346	375
17		63	91	119	147	176	204	232	261	290	317	346	374
18		62	91	119	147	176	204	232	261	289	317	345	374
19		62	90	119	147	175	204	232	260	289	317	346	374
20		62	90	118	147	175	204	232	260	289	317	345	373
21			90	119	147	175	203	232	260	288	317	345	373
22			90	118	147	175	203	232	260	288	317	345	373
23			90	118	146	175	203	231	260	288	316	345	373
24			90	118	146	175	203	231	260	288	316	345	373
25			90	118	146	175	203	231	260	288	316	345	373
26				118	146	175	203	231	259	288	316	344	373
27				118	146	174	203	231	259	288	316	344	373
28				118	146	174	203	231	259	288	316	344	373
29				118	146	174	203	231	259	288	316	344	373
30				118	146	174	203	231	259	287	316	344	372
31				118	146	174	203	231	259	288	316	344	373
32				118	146	174	202	231	259	287	316	344	372
33				117	146	174	202	231	259	287	316	344	372
34				117	146	174	202	231	259	287	316	344	372
35				117	146	174	202	231	259	287	316	344	372
36				117	146	174	202	231	259	287	316	344	372

Northern Conifers Volume Basal Area Ratios
FC 78 International Rule Board Feet per Square Foot of Basal Area

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	57								
9	68	91							
10	66	88	103	116					
11	70	93	109	122					
12	71	94	112	125	139				
13	71	97	115	129	144				
14	70	97	116	131	146	156			
15	74	100	119	135	150	162			
16	76	101	120	138	152	166	177		
17	77	103	122	140	155	169	180		
18	77	103	123	140	156	170	182		
19	78	104	141	143	159	173	185		
20	78	105	155	144	160	174	187		
21	79	106	155	146	162	176	189	201	
22	80	107	154	147	163	177	191	203	
23	80	108	154	147	164	179	192	204	
24	80	108	153	147	165	179	193	205	217
25	81	108	141	149	166	181	195	207	219
26	81	109	130	149	167	182	196	208	221
27	81	109	131	150	167	183	197	210	222
28	81	109	131	150	168	183	198	210	222
29	82	110	132	151	169	185	199	212	224
30	82	110	132	152	169	185	200	213	225

Northern Conifers Volume Basal Area Ratios
FC 80 International Rule Board Feet per Square Foot of Basal Area

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	57								
9	68	91							
10	70	93	109	123					
11	74	98	116	129					
12	76	100	119	132	147				
13	75	102	122	137	152				
14	74	103	123	139	155	166			
15	78	106	126	143	159	172			
16	81	107	128	146	161	176	188		
17	81	109	130	148	164	179	191		
18	82	109	130	149	166	180	193		
19	83	111	149	151	168	183	196		
20	83	111	164	152	169	184	198	210	
21	84	113	164	154	172	187	201	213	
22	85	113	163	156	173	188	202	215	
23	85	114	163	156	174	189	204	217	
24	85	114	162	156	175	190	205	217	230
25	86	115	149	158	176	192	207	220	233
26	86	115	138	158	177	193	208	221	234
27	86	115	139	159	177	194	209	222	235
28	86	115	139	159	178	194	209	223	235
29	87	116	140	160	179	196	211	225	237
30	87	117	140	161	179	196	212	226	239

Northern Conifers Volume-Basal Area Ratios
FC 78 Maine Rule Board Feet per Square Foot of Basal Area

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	57								
9	70	93							
10	72	94	116						
11	74	97	118						
12	75	97	119	135	152				
13	76	98	119	137	154				
14	76	97	119	137	154				
15	77	99	121	138	155				
16	78	100	121	138	155	169	183		
17	79	101	123	140	157	171	185		
18	79	101	123	140	157	171	186		
19	80	102	124	141	159	173	188		
20	81	103	124	142	159	173	188		
21	82	104	126	143	161	175	189		
22	82	104	126	143	161	175	190		
23	83	104	126	144	162	176	191		
24	83	104	126	144	162	176	190		
25	83	105	127	145	162	177	193		
26	84	106	128	145	163	178	194	206	168
27	84	106	128	145	163	179	194	207	172
28	84	106	128	146	163	179	194	207	176
29	84	106	129	147	165	180	195	209	180
30	85	107	129	147	165	180	196	209	183

Northern Conifers Volume-Basal Area Ratios
FC 80 Maine Rule Board Feet per Square Foot of Basal Area

	height in # of 16' logs								
DBH	1	1.5	2	2.5	3	3.5	4	4.5	5
8	57								
9	70	93							
10	77	101	125						
11	79	103	127						
12	79	102	126	144	162				
13	80	104	128	145	164				
14	81	104	127	145	163				
15	82	106	129	148	166				
16	82	106	129	148	166	181	195		
17	84	107	131	149	168	183	198		
18	84	108	131	150	168	183	199		
19	85	109	132	151	169	185	200		
20	85	109	132	151	170	185	200		
21	86	110	133	152	171	187	202		
22	86	110	133	152	171	187	203		
23	87	111	134	153	172	188	204		
24	87	111	134	154	173	189	204		
25	88	112	135	154	174	190	206		
26	88	112	135	154	173	190	207	221	235
27	89	112	136	155	174	191	207	221	236
28	89	112	136	155	174	191	206	221	236
29	89	113	137	156	175	192	208	223	237
30	89	113	137	156	176	192	209	223	238

Eastern White Cedar Volume Basal Area Ratios
International Rule Board Feet per Square Foot of Basal Area

DBH	total tree height (feet)							
	30	40	50	60	70	80	90	100
8	45	54	62	68	74	78	82	
9	56	68	77	85	91	97	102	
10		76	86	95	102	108	113	
11		81	92	101	109	115	121	126
12		84	96	105	113	120	126	132
13			99	108	117	124	130	135
14			101	111	119	126	133	138
15			102	112	121	128	135	140
16			103	114	122	130	136	142
17			104	115	123	131	137	143
18			105	116	124	132	138	144
19				116	125	133	139	145
20				117	126	133	140	146
21				117	126	134	140	146
22				118	127	134	141	147
23					127	135	141	147
24					127	33	142	147
25					127	135	142	148
26					128	135	142	148
27					128	136	142	148
28					128	136	142	148
29					128	136	143	149
30					128	136	143	149

Maine Hardwood Pulpwood Volume-Basal Area Ratio
CORDS per Square Foot of Basal Area

DBH	Merchantable Height in 16 Foot Logs					
	1	1.5	2	2.5	3	3.5
6	0.13	0.19				
7	0.13	0.19				
8	0.13	0.19	0.26			
9	0.13	0.19	0.26			
10	0.13	0.19	0.26	0.32		
11	0.13	0.19	0.26	0.32		
12	0.13	0.19	0.26	0.32	0.38	
13	0.13	0.19	0.26	0.32	0.38	
14		0.19	0.26	0.32	0.38	0.45
15		0.19	0.26	0.32	0.38	0.45
16			0.26	0.32	0.38	0.45
17			0.26	0.32	0.38	0.45
18			0.26	0.32	0.38	0.45
19				0.32	0.38	0.45
20				0.32	0.38	0.45
21				0.32	0.38	0.45
22				0.32	0.38	0.45
23				0.32	0.38	0.45
24				0.32	0.38	0.45
25				0.32	0.38	0.45

Maine Hardwood Pulpwood Volume-Basal Area Ratio
TONS per Square Foot of Basal Area

DBH	Merchantable Height in 16 Foot Logs					
	1	1.5	2	2.5	3	3.5
6	0.32	0.48				
7	0.32	0.48				
8	0.32	0.48	0.64			
9	0.32	0.48	0.64			
10	0.32	0.48	0.64	0.80		
11	0.32	0.48	0.64	0.80		
12	0.32	0.48	0.64	0.80	0.96	
13	0.32	0.48	0.64	0.80	0.96	
14		0.48	0.64	0.80	0.96	1.12
15		0.48	0.64	0.80	0.96	1.12
16			0.64	0.80	0.96	1.12
17			0.64	0.80	0.96	1.12
18			0.64	0.80	0.96	1.12
19				0.80	0.96	1.12
20				0.80	0.96	1.12
21				0.81	0.96	1.12
22				0.80	0.96	1.12
23				0.80	0.96	1.12
24				0.80	0.96	1.12
25				0.80	0.96	1.12

Hemlock Pulpwood Volume-Basal Area Ratio
CORDS per Square Foot of Basal Area

	Merchantable Height in Feet						
DBH	30	40	50	60	70	80	90
6	0.163	0.739	0.301				
7	0.165	0.221	0.300				
8	0.163	0.226	0.290				
9	0.168	0.227	0.288	0.338			
10	0.178	0.226	0.284	0.328	0.000		
11	0.179	0.224	0.276	0.318	0.000		
12		0.231	0.277	0.317	0.364		
13		0.228	0.277	0.314	0.358		
14		0.231	0.274	0.311	0.350		
15		0.232	0.273	0.312	0.347	0.386	
16		0.229	0.269	0.310	0.342	0.387	
17				0.310	0.343	0.386	
18				0.313	0.346	0.391	
19				0.314	0.348	0.388	
20				0.320	0.355	0.392	0.440
21				0.325	0.360	0.397	0.444
22				0.329	0.365	0.403	0.450
23					0.369	0.408	0.455
24					0.373	0.411	0.461
25					0.373	0.412	0.462
26					0.378	0.415	0.468

Hemlock Pulpwood Volume-Basal Area Ratio
TONS per Square Foot of Basal Area

	Merchantable Height in Feet						
DBH	30	40	50	60	70	80	90
6	0.375	1.700	0.692				
7	0.379	0.508	0.689				
8	0.376	0.521	0.666				
9	0.386	0.521	0.662	0.776			
10	0.409	0.519	0.654	0.755	0.000		
11	0.412	0.516	0.635	0.732	0.000		
12		0.530	0.636	0.730	0.838		
13		0.524	0.637	0.722	0.824		
14		0.532	0.631	0.715	0.805		
15		0.535	0.628	0.718	0.797	0.887	
16		0.528	0.618	0.714	0.786	0.890	
17				0.714	0.790	0.888	
18				0.719	0.796	0.899	
19				0.722	0.801	0.893	
20				0.735	0.816	0.902	1.013
21				0.747	0.828	0.912	1.021
22				0.756	0.840	0.926	1.035
23					0.850	0.937	1.047
24					0.858	0.946	1.060
25					0.858	0.947	1.061
26					0.868	0.955	1.076

Spruce Pulpwood Volume-Basal Area Ratio
CORDS per Square Foot of Basal Area

	Merchantable Height in Feet								
DBH	40	45	50	55	60	65	70	75	80
6	0.20	0.20	0.25	0.31					
7	0.22	0.22	0.26	0.30	0.34				
8	0.20	0.23	0.26	0.29	0.34	0.37			
9	0.20	0.23	0.27	0.29	0.32	0.36			
10	0.20	0.22	0.26	0.29	0.31	0.35	0.37	0.40	
11		0.23	0.26	0.29	0.30	0.33	0.36	0.39	0.42
12		0.23	0.25	0.28	0.31	0.33	0.36	0.38	0.41
13		0.23	0.25	0.27	0.29	0.33	0.35	0.37	0.40
14			0.24	0.27	0.29	0.32	0.34	0.37	0.39
15				0.26	0.29	0.31	0.33	0.35	0.38
16				0.26	0.28	0.30	0.32	0.34	0.37
17				0.25	0.27	0.29	0.32	0.34	0.37
18				0.25	0.27	0.28	0.31	0.33	0.36
19				0.25	0.26	0.28	0.30	0.33	0.36
20				0.24	0.26	0.28	0.30	0.33	0.35

Spruce Pulpwood Volume-Basal Area Ratio
TONS per Square Foot of Basal Area

	Merchantable Height in Feet								
DBH	40	45	50	55	60	65	70	75	80
6	0.31	0.31	0.38	0.46					
7	0.34	0.34	0.39	0.45	0.51				
8	0.30	0.34	0.39	0.43	0.52	0.56			
9	0.31	0.34	0.41	0.44	0.48	0.54			
10	0.30	0.33	0.39	0.44	0.47	0.52	0.55	0.61	
11		0.34	0.39	0.43	0.45	0.50	0.55	0.59	0.64
12		0.34	0.38	0.42	0.46	0.50	0.54	0.57	0.61
13		0.34	0.37	0.41	0.44	0.49	0.52	0.55	0.60
14			0.37	0.41	0.44	0.48	0.51	0.55	0.59
15				0.39	0.43	0.46	0.49	0.53	0.57
16				0.39	0.42	0.45	0.48	0.52	0.56
17				0.38	0.41	0.44	0.48	0.51	0.56
18				0.38	0.41	0.42	0.47	0.50	0.54
19				0.37	0.40	0.43	0.46	0.50	0.53
20				0.36	0.39	0.43	0.45	0.50	0.53

Balsam Fir Pulpwood Volume-Basal Area Ratio
CORDS per Square Foot of Basal Area

DBH	Height in # of 8' Bolts						
	1	2	3	4	5	6	7
5	0.061	0.139					
6	0.067	0.138	0.224				
7		0.139	0.206	0.277	0.348		
8			0.195	0.255	0.315		
9			0.188	0.240	0.294	0.347	
10				0.229	0.277	0.327	0.374
11				0.221	0.267	0.311	0.355
12				0.215	0.257	0.299	0.340
13				0.212	0.251	0.290	0.329
14					0.245	0.283	0.320
15					0.241	0.277	0.313

Balsam Fir Pulpwood Volume-Basal Area Ratio
TONS per Square Foot of Basal Area

DBH	Height in # of 8' Bolts						
	1	2	3	4	5	6	7
5	0.125	0.286					
6	0.137	0.282	0.460				
7		0.284	0.422	0.568	0.714		
8			0.400	0.523	0.647		
9			0.385	0.492	0.604	0.710	
10				0.470	0.568	0.670	0.767
11				0.454	0.547	0.637	0.727
12				0.441	0.528	0.614	0.697
13				0.434	0.514	0.594	0.674
14					0.503	0.580	0.656
15					0.495	0.568	0.642

Lake States Pulpwood Volume-Basal Area Ratio
CORDS per Square Foot of Basal Area 4" top diameter

Number of eight-foot bolts

DBH	1	2	3	4	5	6	7	8	9	10
6	0.082	0.143	0.204	0.265	0.331	0.392	0.459	0.525		
7	0.075	0.139	0.187	0.240	0.296	0.359	0.416	0.476	0.535	0.595
8	0.075	0.132	0.181	0.226	0.278	0.333	0.393	0.444	0.499	0.556
9	0.072	0.129	0.177	0.222	0.267	0.317	0.372	0.424	0.473	0.526
10	0.070	0.127	0.172	0.217	0.259	0.306	0.356	0.409	0.457	0.506
11	0.068	0.123	0.170	0.211	0.253	0.297	0.344	0.397	0.446	0.491
12	0.066	0.121	0.166	0.208	0.248	0.292	0.338	0.387	0.436	0.482
13	0.065	0.118	0.164	0.205	0.244	0.288	0.332	0.380	0.429	0.474
14	0.065	0.117	0.162	0.202	0.242	0.284	0.328	0.374	0.423	0.468
15	0.064	0.115	0.160	0.200	0.239	0.281	0.324	0.369	0.419	0.463
16	0.063	0.114	0.158	0.198	0.237	0.278	0.321	0.366	0.415	0.459
17	0.062	0.112	0.156	0.196	0.235	0.276	0.319	0.363	0.412	0.456
18		0.112	0.155	0.195	0.233	0.274	0.317	0.360	0.409	0.453
19		0.110	0.154	0.193	0.231	0.272	0.315	0.357	0.407	0.450
20		0.110	0.153	0.192	0.230	0.270	0.313	0.356	0.404	0.448
21		0.109	0.152	0.191	0.229	0.269	0.312	0.354	0.402	0.446
22		0.108	0.151	0.190	0.227	0.268	0.310	0.353	0.401	0.672
23		0.108	0.150	0.188	0.226	0.266	0.309	0.351	0.399	0.443
24		0.107	0.149	0.188	0.226	0.265	0.308	0.350	0.398	0.442
25		0.107	0.149	0.187	0.225	0.265	0.307	0.349	0.396	0.441
26		0.106	0.148	0.186	0.224	0.264	0.306	0.349	0.395	0.440
27		0.105	0.147	0.185	0.223	0.263	0.306	0.348	0.394	0.439
28		0.105	0.147	0.184	0.222	0.262	0.305	0.347	0.393	0.438
29		0.105	0.146	0.184	0.221	0.261	0.304	0.346	0.392	0.437
30		0.104	0.146	0.183	0.221	0.261	0.304	0.346	0.392	0.436

Jack Pine Pulpwood Volume-Basal Area Ratio

TONS per Square Foot of Basal Area 4" top diameter

Number of eight-foot bolts

DBH	1	2	3	4	5	6	7	8	9	10
6	0.183	0.321	0.459	0.596	0.745	0.883	1.032	1.181		
7	0.169	0.312	0.421	0.539	0.666	0.809	0.935	1.070	1.205	1.340
8	0.168	0.297	0.406	0.510	0.626	0.748	0.884	1.000	1.122	1.251
9	0.163	0.291	0.398	0.499	0.601	0.714	0.836	0.953	1.065	1.182
10	0.157	0.285	0.388	0.487	0.582	0.689	0.801	0.921	1.028	1.139
11	0.154	0.276	0.382	0.474	0.570	0.669	0.775	0.894	1.003	1.105
12	0.149	0.272	0.373	0.467	0.559	0.657	0.760	0.872	0.981	1.084
13	0.147	0.266	0.369	0.462	0.550	0.647	0.748	0.855	0.965	1.068
14	0.145	0.263	0.364	0.455	0.543	0.638	0.737	0.843	0.952	1.053
15	0.143	0.259	0.360	0.450	0.538	0.631	0.728	0.831	0.943	1.042
16	0.142	0.256	0.355	0.445	0.532	0.626	0.722	0.822	0.934	1.032
17	0.140	0.253	0.351	0.441	0.529	0.620	0.717	0.816	0.927	1.026
18		0.251	0.349	0.438	0.525	0.615	0.712	0.809	0.921	1.019
19		0.248	0.347	0.435	0.520	0.612	0.708	0.804	0.915	1.013
20		0.247	0.344	0.431	0.518	0.608	0.704	0.800	0.909	1.008
21		0.245	0.342	0.429	0.515	0.605	0.701	0.797	0.905	1.004
22		0.243	0.339	0.426	0.512	0.602	0.699	0.793	0.902	1.512
23		0.242	0.337	0.424	0.510	0.599	0.695	0.791	0.897	0.997
24		0.241	0.335	0.422	0.507	0.597	0.693	0.788	0.894	0.995
25		0.240	0.334	0.420	0.505	0.595	0.691	0.786	0.892	0.992
26		0.239	0.332	0.418	0.503	0.593	0.689	0.784	0.889	0.989
27		0.237	0.331	0.417	0.502	0.591	0.688	0.782	0.887	0.988
28		0.236	0.330	0.415	0.500	0.590	0.686	0.780	0.885	0.986
29		0.236	0.328	0.414	0.498	0.588	0.684	0.779	0.883	0.984
30		0.235	0.328	0.412	0.497	0.587	0.683	0.778	0.881	0.982

Red Pine Pulpwood Volume-Basal Area Ratio

TONS per Square Foot of Basal Area — 4" top diameter

Number of eight-foot bolts

DBH	1	2	3	4	5	6	7	8	9	10
6	0.192	0.335	0.479	0.623	0.779	0.922	1.078	1.234		
7	0.176	0.326	0.440	0.563	0.695	0.845	0.977	1.118	1.258	1.399
8	0.175	0.310	0.424	0.532	0.654	0.782	0.923	1.044	1.172	1.307
9	0.170	0.303	0.415	0.522	0.628	0.745	0.873	0.995	1.113	1.235
10	0.164	0.298	0.405	0.509	0.608	0.720	0.837	0.962	1.074	1.190
11	0.160	0.289	0.399	0.495	0.595	0.698	0.809	0.934	1.048	1.155
12	0.156	0.284	0.389	0.488	0.584	0.686	0.794	0.910	1.024	1.132
13	0.153	0.278	0.385	0.482	0.574	0.676	0.781	0.893	1.008	1.115
14	0.152	0.275	0.381	0.475	0.568	0.667	0.770	0.880	0.994	1.100
15	0.149	0.270	0.376	0.470	0.562	0.659	0.761	0.868	0.985	1.089
16	0.148	0.268	0.371	0.465	0.556	0.654	0.755	0.859	0.975	1.078
17	0.146	0.264	0.367	0.461	0.552	0.648	0.749	0.852	0.968	1.071
18		0.262	0.365	0.458	0.548	0.643	0.744	0.845	0.962	1.065
19		0.259	0.362	0.454	0.543	0.639	0.739	0.840	0.956	1.058
20		0.258	0.359	0.451	0.541	0.635	0.735	0.835	0.950	1.053
21		0.256	0.357	0.448	0.538	0.632	0.732	0.832	0.945	1.049
22		0.254	0.355	0.445	0.535	0.629	0.730	0.829	0.942	1.580
23		0.253	0.352	0.443	0.532	0.626	0.726	0.826	0.937	1.042
24		0.252	0.350	0.441	0.530	0.624	0.724	0.823	0.934	1.039
25		0.250	0.349	0.439	0.528	0.622	0.722	0.821	0.931	1.036
26		0.249	0.347	0.437	0.526	0.619	0.720	0.819	0.929	1.033
27		0.248	0.346	0.435	0.524	0.618	0.718	0.817	0.926	1.032
28		0.247	0.344	0.433	0.522	0.616	0.716	0.815	0.925	1.030
29		0.246	0.343	0.432	0.520	0.614	0.715	0.814	0.922	1.027
30		0.245	0.342	0.431	0.519	0.613	0.714	0.812	0.920	1.026

White (Paper) Birch Pulpwood Volume Basal Area Ratios
CORDS per Square Foot of Basal Area

	Total Tree Height in Feet								
DBH	40	50	60	70	80	90	100	110	120
10	0.202	0.239	0.272	0.302	0.330	0.355			
11	0.205	0.242	0.276	0.306	0.334	0.359	0.382		
12	0.207	0.244	0.278	0.309	0.336	0.362	0.385		
13		0.246	0.280	0.311	0.339	0.364	0.387		
14		0.247	0.281	0.312	0.340	0.365	0.389		
15		0.248	0.282	0.313	0.341	0.367	0.390		
16		0.248	0.283	0.314	0.342	0.368	0.391	0.413	0.433
17		0.249	0.283	0.314	0.343	0.368	0.392	0.413	0.433
18		0.249	0.284	0.315	0.343	0.369	0.392	0.414	0.434
19			0.113	0.315	0.344	0.369	0.393	0.415	0.435
20			0.284	0.316	0.344	0.370	0.393	0.415	0.435
21			0.285	0.316	0.344	0.370	0.394	0.415	0.435
22			0.285	0.316	0.345	0.370	0.394	0.416	0.436
23				0.316	0.345	0.371	0.394	0.416	0.436
24				0.317	0.345	0.371	0.395	0.416	0.436
25				0.317	0.345	0.371	0.395	0.416	0.437
26				0.317	0.345	0.371	0.395	0.417	0.437
27				0.317	0.345	0.371	0.395	0.417	0.437
28				0.317	0.346	0.371	0.396	0.417	0.437
29				0.317	0.346	0.372	0.395	0.417	0.437
30				0.317	0.346	0.372	0.395	0.417	0.437

White (Paper) Birch Pulpwood Volume Basal Area Ratios
TONS per Square Foot of Basal Area

	total tree height (feet)								
DBH	40	50	60	70	80	90	100	110	120
10	0.430	0.508	0.579	0.643	0.701	0.753			
11	0.435	0.515	0.586	0.651	0.709	0.762	0.811		
12	0.439	0.519	0.591	0.656	0.715	0.769	0.818		
13		0.522	0.595	0.660	0.719	0.773	0.823		
14		0.525	0.597	0.663	0.722	0.775	0.826		
15		0.526	0.599	0.665	0.725	0.779	0.829		
16		0.528	0.601	0.667	0.727	0.781	0.831	0.877	0.919
17		0.529	0.602	0.668	0.728	0.783	0.833	0.879	0.921
18		0.530	0.603	0.669	0.729	0.784	0.834	0.880	0.922
19			0.241	0.670	0.730	0.785	0.835	0.881	0.924
20			0.604	0.671	0.731	0.786	0.836	0.882	0.925
21			0.605	0.671	0.732	0.786	0.837	0.883	0.925
22			0.605	0.672	0.732	0.787	0.837	0.884	0.926
23				0.672	0.733	0.788	0.838	0.884	0.927
24				0.673	0.733	0.788	0.838	0.885	0.927
25				0.673	0.733	0.788	0.839	0.885	0.928
26				0.673	0.734	0.789	0.839	0.885	0.928
27				0.674	0.734	0.789	0.839	0.886	0.928
28				0.674	0.734	0.789	0.841	0.886	0.929
29				0.674	0.734	0.790	0.840	0.886	0.929
30				0.674	0.735	0.790	0.840	0.886	0.929

White Spruce Stem Volume-Basal Area Ratio
TONS per Square Foot of Basal Area

	Total Tree Height in Feet						
DBH	20	30	40	50	60	70	80
6	0.436	0.543	0.650	0.754	0.861	0.968	1.075
8	0.338	0.444	0.550	0.658	0.764	0.870	0.976
10	0.294	0.400	0.506	0.613	0.719	0.826	0.932
12		0.375	0.482	0.588	0.694	0.801	0.907
14		0.360	0.467	0.573	0.680	0.786	0.892
16		0.000	0.457	0.563	0.670	0.776	0.883
18				0.557	0.537	0.623	0.710
20					0.813	0.945	1.076

Aspen (popple) Stem Volume-Basal Area Ratio
TONS per Square Foot of Basal Area

	Total Tree Height in Feet							
DBH	20	30	40	50	60	70	80	90
6	0.229	0.347	0.464	0.581	0.698	0.818	0.935	1.052
8	0.232	0.350	0.467	0.585	0.702	0.819	0.936	1.054
10	0.233	0.350	0.468	0.585	0.703	0.820	0.938	1.055
12	0.234	0.351	0.468	0.586	0.703	0.821	0.938	1.056
14		0.352	0.469	0.586	0.704	0.821	0.938	1.056
16			0.469	0.586	0.704	0.821	0.939	1.056
18				0.475	0.570	0.665	0.761	0.856
20				0.724	0.869	1.014	1.159	1.304

Red Pine Stem Volume-Basal Area Ratio
TONS per Square Foot of Basal Area

	Total Tree Height in Feet					
DBH	30	40	50	60	70	80
6	0.451	0.591	0.734	0.874	1.014	1.157
8	0.439	0.581	0.721	0.863	1.003	1.145
10	0.392	0.574	0.716	0.857	0.998	1.139
12	0.431	0.571	0.713	0.854	0.996	1.137
14		0.570	0.711	0.852	0.994	1.135
16			0.710	0.851	0.993	1.134
18				0.689	0.803	0.918
20				0.000	1.224	1.398

WHOLE TREE GREEN WEIGHT VOLUME-BASAL AREA RATIOS

Combined Hardwoods - TONS per Square Foot of Basal Area

	Total Tree Height in Feet					
DBH	15	30	50	65	80	95
4	0.37	0.60	0.90	1.13		
5	0.35	0.22	0.90	1.14	1.38	
6	0.33	0.58	0.90	1.14	1.38	
7	0.32	0.57	0.89	1.14	1.38	1.63
8	0.32	0.56	0.89	1.05	1.38	1.63
9	0.31	0.56	0.89	1.13	1.38	1.63
10	0.30	0.55	0.88	1.13	1.38	1.63
11	0.30	0.55	0.88	1.13	1.38	1.63
12	0.30	0.54	0.88	1.13	1.38	1.63
13	0.29	0.54	0.88	1.12	1.38	1.62
14	0.29	0.54	0.87	1.12	1.37	1.62
15	0.29	0.54	0.87	1.12	1.37	1.62
16		0.54	0.87	1.12	1.37	1.62
17		0.53	0.87	1.12	1.37	1.62
18			0.87	1.12	1.37	1.62
19			0.87	1.12	1.37	1.62
20				1.12	1.37	1.62
21				1.11	1.37	1.62
22					1.37	1.62

WHOLE TREE GREEN WEIGHT VOLUME-BASAL AREA RATIOS

Combined Softwoods - TONS per Square Foot of Basal Area

	Total Tree Height in Feet					
DBH	15	30	50	65	80	95
4	0.47	0.57	0.69	0.79		
5	0.44	0.58	0.78	0.92	1.07	
6	0.41	0.58	0.82	0.99	1.16	
7	0.39	0.58	0.83	1.02	1.21	1.40
8	0.38	0.57	0.84	1.04	1.24	1.44
9	0.36	0.57	0.84	1.05	1.26	1.46
10	0.35	0.56	0.84	1.06	1.27	1.48
11	0.34	0.56	0.84	1.06	1.28	1.49
12	0.33	0.55	0.84	1.06	1.28	1.50
13	0.33	0.55	0.84	1.06	1.28	1.50
14	0.32	0.54	0.84	1.06	1.29	1.51
15	0.32	0.54	0.84	1.06	1.29	1.51
16		0.54	0.84	1.06	1.29	1.51
17		0.53	0.83	1.06	1.29	1.51
18			0.83	1.06	1.29	1.51
19			0.83	1.06	1.29	1.51
20				1.06	1.29	1.51
21				1.06	1.29	1.51
22					1.28	1.51

WHOLE TREE GREEN WEIGHT VOLUME-BASAL AREA RATIOS

Beech - TONS per Square Foot of Basal Area

	Total Tree Height in Feet					
DBH	15	30	50	65	80	95
4	0.48	0.73	1.06	1.31		
5	0.45	0.72	1.08	1.35	1.63	
6	0.43	0.71	1.09	1.37	1.65	
7	0.41	0.70	1.09	1.38	1.67	1.96
8	0.40	0.70	1.09	1.38	1.68	1.97
9	0.39	0.69	1.09	1.27	1.68	1.98
10	0.38	0.68	1.08	1.38	1.68	1.98
11	0.38	0.68	1.08	1.38	1.68	1.98
12	0.37	0.67	1.08	1.38	1.68	1.99
13	0.37	0.67	1.08	1.38	1.68	1.99
14	0.36	0.67	1.07	1.38	1.68	1.99
15	0.36	0.67	1.07	1.38	1.68	1.99
16		0.66	1.07	1.37	1.68	1.99
17		0.66	1.07	1.37	1.68	1.99
18			1.07	1.37	1.68	1.98
19			1.06	1.37	1.68	1.98
20				1.37	1.68	1.98
21				1.37	1.68	1.98
22					1.67	1.98

WHOLE TREE GREEN WEIGHT VOLUME BASAL-AREA RATIOS

Soft maple - TONS per Square Foot of Basal Area

DBH	Total Tree Height in Feet					
	15	30	50	65	80	95
	0.28	0.52	0.84	1.08		
	0.27	0.51	0.83	1.08	1.31	
	0.27	0.51	0.83	1.07	1.31	
	0.26	0.50	0.83	1.07	1.31	1.56
	0.26	0.50	0.83	1.07	1.31	1.55
	0.26	0.50	0.82	1.07	1.31	1.55
	0.26	0.50	0.82	1.07	1.31	1.55
	0.25	0.50	0.82	1.07	1.31	1.55
	0.25	0.50	0.82	1.06	1.31	1.55
	0.25	0.50	0.82	1.06	1.31	1.55
	0.25	0.50	0.82	1.06	1.31	1.55
	0.25	0.50	0.82	1.06	1.31	1.55
		0.49	0.82	1.06	1.31	1.55
		0.49	0.82	1.06	1.31	1.55
			0.82	1.06	1.31	1.55
			0.82	1.06	1.31	1.55
				1.06	1.31	1.55
				1.06	1.30	1.55
					1.30	1.55

VOLUME PER ACRE TABLES

Quick estimates of volume per acre can be obtained by measuring basal area per acre (equal to the number of trees counted, multiplied by the BAF and then divided by the number of sample points) and referencing the quick volume tables in this chapter. These tables are meant to be a convenient reference for rough estimates, rather than a substitute for more detailed and accurate timber cruising work. They can be used to improve on guesswork, but should not replace more detailed and careful analysis and fieldwork. The tables are similar in their design to the *Quick Cruise Computer* graphs done by the US Forest Service, but they are a bit easier to read and cover a somewhat wider array of possibilities. The tables state an average timber volume per acre for a range of basal area per acre values and an average merchantable tree height that selected by the user.

That the best use of the shortcut volume tables is to state a likely range of timber volume stocking levels, based on user observations. They are not intended be used for formal appraisal purposes.

There are three tables for each of the International, Scribner and Doyle log rules. One table in each log rule covers *light*, *medium* and *heavy* sawtimber. Specifically, *light* sawtimber assumes timber primarily stocked in the 12- to 16-inch DBH range, with an average DBH of 14 inches. *Medium* sawtimber assumes timber primarily stocked in the 16- to 20-inch DBH range, with an average DBH of 18 inches. *Heavy* sawtimber assumes timber primarily stocked in the 20- to 24-inch DBH range, with an average DBH of 18 inches. If the user believes somewhat different ranges are appropriate for a given situation, try selecting a volume per acre somewhere between two of the tables. For hardwood sawtimber stands with an average DBH larger than 24", completely disregard these tables and get out into the woods with a diameter tape!

Each table is Form Class 78. Tables can be adjusted upward or downward, by adding or subtracting three percent for each form class.

As noted earlier in this book, utilization standards for spruce and fir sawtimber allow us to measure heights to very small upper diameters (5-6") and thus utilize trees down to smaller DBH than with hardwoods. A separate set of shortcut volume tables for spruce and fir are included for this reason. All three tables are in International rule, Form Class 78. This is the average Form Class for spruce in the Northeast, while balsam fir averages Form Class 80. For stands with half or more of their stocking in fir, adjust the per-acre volumes in these tables upward by three to six percent. The light sawtimber tables assume an average DBH of 10", while the medium sawtimber table assumes an average DBH of 14" and the heavy sawtimber uses an average DBH of 18" DBH.

There are six shortcut volume tables for hardwood pulpwood: three in cords per acre and three in tons per acre. An average DBH of 10" is assumed in the small diameter tables, 14" DBH in the medium diameter tables and 18" DBH in the large diameter tables. Merchantable heights are given in feet. The cordwood tables are based on Form Class 78. The tonnage tables are a conversion of the cordwood tables, based on 5,000 lbs. per cord. Users can make their own adjustments to this weight depending on the most common pulpwood species in a stand. Among hardwood species in the Northeast, this adjustment might be plus or minus 20 percent.

SHORTCUT VOLUME PER ACRE TABLE (MBF)
LIGHT SAWTIMBER (AVG 14" DBH)
MBF/Acre - International rule - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.365	0.490	0.620	0.715	0.815	0.875	0.935		
10	0.730	0.980	1.240	1.430	1.630	1.750	1.870		
15	1.095	1.470	1.860	2.145	2.445	2.625	2.805		
20	1.460	1.960	2.480	2.860	3.260	3.500	3.740		
25	1.825	2.450	3.100	3.575	4.075	4.375	4.675		
30	2.190	2.940	3.720	4.290	4.890	5.250	5.610		
35	2.555	3.430	4.340	5.005	5.705	6.125	6.545		
40	2.920	3.920	4.960	5.720	6.520	7.000	7.480		
45	3.285	4.410	5.580	6.435	7.335	7.875	8.415		
50	3.650	4.900	6.200	7.150	8.150	8.750	9.350		
55	4.015	5.390	6.820	7.865	8.965	9.625	10.285		
60	4.380	5.880	7.440	8.580	9.780	10.500	11.220		
65	4.745	6.370	8.060	9.295	10.595	11.375	12.155		
70	5.110	6.860	8.680	10.010	11.410	12.250	13.090		
75	5.475	7.350	9.300	10.725	12.225	13.125	14.025		
80	5.840	7.840	9.920	11.440	13.040	14.000	14.960		
85	6.205	8.330	10.540	12.155	13.855	14.875	15.895		
90	6.570	8.820	11.160	12.870	14.670	15.750	16.830		
95	6.935	9.310	11.780	13.585	15.485	16.625	17.765		
100	7.300	9.800	12.400	14.300	16.300	17.500	18.700		

INTERNATIONAL RULE LIGHT SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
MEDIUM SAWTIMBER (AVG 18" DBH)
MBF/Acre - International rule - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.385	0.520	0.660	0.775	0.890	0.975	1.060		
10	0.770	1.040	1.320	1.550	1.780	1.950	2.120		
15	1.155	1.560	1.980	2.325	2.670	2.925	3.180		
20	1.540	2.080	2.640	3.100	3.560	3.900	4.240		
25	1.925	2.600	3.300	3.875	4.450	4.875	5.300		
30	2.310	3.120	3.960	4.650	5.340	5.850	6.360		
35	2.695	3.640	4.620	5.425	6.230	6.825	7.420		
40	3.080	4.160	5.280	6.200	7.120	7.800	8.480		
45	3.465	4.680	5.940	6.975	8.010	8.775	9.540		
50	3.850	5.200	6.600	7.750	8.900	9.750	10.600		
55	4.235	5.720	7.260	8.525	9.790	10.725	11.660		
60	4.620	6.240	7.920	9.300	10.680	11.700	12.720		
65	5.005	6.760	8.580	10.075	11.570	12.675	13.780		
70	5.390	7.280	9.240	10.850	12.460	13.650	14.840		
75	5.775	7.800	9.900	11.625	13.350	14.625	15.900		
80	6.160	8.320	10.560	12.400	14.240	15.600	16.960		
85	6.545	8.840	11.220	13.175	15.130	16.575	18.020		
90	6.930	9.360	11.880	13.950	16.020	17.550	19.080		
95	7.315	9.880	12.540	14.725	16.910	18.525	20.140		
100	7.700	10.400	13.200	15.500	17.800	19.500	21.200		

INTERNATIONAL RULE MEDIUM SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
HEAVY SAWTIMBER (AVG 18" DBH)
MBF/Acre - International rule - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.400	0.550	0.700	0.825	0.950	1.045	1.145	1.225	1.310
10	0.800	1.100	1.400	1.650	1.900	2.090	2.290	2.450	2.620
15	1.200	1.650	2.100	2.475	2.850	3.135	3.435	3.675	3.930
20	1.600	2.200	2.800	3.300	3.800	4.180	4.580	4.900	5.240
25	2.000	2.750	3.500	4.125	4.750	5.225	5.725	6.125	6.550
30	2.400	3.300	4.200	4.950	5.700	6.270	6.870	7.350	7.860
35	2.800	3.850	4.900	5.775	6.650	7.315	8.015	8.575	9.170
40	3.200	4.400	5.600	6.600	7.600	8.360	9.160	9.800	10.480
45	3.600	4.950	6.300	7.425	8.550	9.405	10.305	11.025	11.790
50	4.000	5.500	7.000	8.250	9.500	10.450	11.450	12.250	13.100
55	4.400	6.050	7.700	9.075	10.450	11.495	12.595	13.475	14.410
60	4.800	6.600	8.400	9.900	11.400	12.540	13.740	14.700	15.720
65	5.200	7.150	9.100	10.725	12.350	13.585	14.885	15.925	17.030
70	5.600	7.700	9.800	11.550	13.300	14.630	16.030	17.150	18.340
75	6.000	8.250	10.500	12.375	14.250	15.675	17.175	18.375	19.650
80	6.400	8.800	11.200	13.200	15.200	16.720	18.320	19.600	20.960
85	6.800	9.350	11.900	14.025	16.150	17.765	19.465	20.825	22.270
90	7.200	9.900	12.600	14.850	17.100	18.810	20.610	22.050	23.580
95	7.600	10.450	13.300	15.675	18.050	19.855	21.755	23.275	24.890
100	8.000	11.000	14.000	16.500	19.000	20.900	22.900	24.500	26.200

INTERNATIONAL HEAVY SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
LIGHT SAWTIMBER (AVG 14" DBH)
MBF/Acre - Scribner rule - Form Class 78
Average Height (# of 16' logs)

BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.325	0.430	0.535	0.610	0.685	0.730	0.775		
10	0.650	0.860	1.070	1.220	1.370	1.460	1.550		
15	0.975	1.290	1.605	1.830	2.055	2.190	2.325		
20	1.300	1.720	2.140	2.440	2.740	2.920	3.100		
25	1.625	2.150	2.675	3.050	3.425	3.650	3.875		
30	1.950	2.580	3.210	3.660	4.110	4.380	4.650		
35	2.275	3.010	3.745	4.270	4.795	5.110	5.425		
40	2.600	3.440	4.280	4.880	5.480	5.840	6.200		
45	2.925	3.870	4.815	5.490	6.165	6.570	6.975		
50	3.250	4.300	5.350	6.100	6.850	7.300	7.750		
55	3.575	4.730	5.885	6.710	7.535	8.030	8.525		
60	3.900	5.160	6.420	7.320	8.220	8.760	9.300		
65	4.225	5.590	6.955	7.930	8.905	9.490	10.075		
70	4.550	6.020	7.490	8.540	9.590	10.220	10.850		
75	4.875	6.450	8.025	9.150	10.275	10.950	11.625		
80	5.200	6.880	8.560	9.760	10.960	11.680	12.400		
85	5.525	7.310	9.095	10.370	11.645	12.410	13.175		
90	5.850	7.740	9.630	10.980	12.330	13.140	13.950		
95	6.175	8.170	10.165	11.590	13.015	13.870	14.725		
100	6.500	8.600	10.700	12.200	13.700	14.600	15.500		

SCRIBNER RULE LIGHT SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
MEDIUM SAWTIMBER (AVG 18" DBH)
MBF/Acre - Scribner rule - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.350	0.470	0.590	0.690	0.795	0.865	0.935		
10	0.700	0.940	1.180	1.380	1.590	1.730	1.870		
15	1.050	1.410	1.770	2.070	2.385	2.595	2.805		
20	1.400	1.880	2.360	2.760	3.180	3.460	3.740		
25	1.750	2.350	2.950	3.450	3.975	4.325	4.675		
30	2.100	2.820	3.540	4.140	4.770	5.190	5.610		
35	2.450	3.290	4.130	4.830	5.565	6.055	6.545		
40	2.800	3.760	4.720	5.520	6.360	6.920	7.480		
45	3.150	4.230	5.310	6.210	7.155	7.785	8.415		
50	3.500	4.700	5.900	6.900	7.950	8.650	9.350		
55	3.850	5.170	6.490	7.590	8.745	9.515	10.285		
60	4.200	5.640	7.080	8.280	9.540	10.380	11.220		
65	4.550	6.110	7.670	8.970	10.335	11.245	12.155		
70	4.900	6.580	8.260	9.660	11.130	12.110	13.090		
75	5.250	7.050	8.850	10.350	11.925	12.975	14.025		
80	5.600	7.520	9.440	11.040	12.720	13.840	14.960		
85	5.950	7.990	10.030	11.730	13.515	14.705	15.895		
90	6.300	8.460	10.620	12.420	14.310	15.570	16.830		
95	6.650	8.930	11.210	13.110	15.105	16.435	17.765		
100	7.000	9.400	11.800	13.800	15.900	17.300	18.700		

SCRIBNER RULE MEDIUM SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
HEAVY SAWTIMBER (AVG 18" DBH)
MBF/Acre - Scribner rule - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.370	0.505	0.640	0.755	0.870	0.955	1.040	1.115	1.185
10	0.740	1.010	1.280	1.510	1.740	1.910	2.080	2.230	2.370
15	1.110	1.515	1.920	2.265	2.610	2.865	3.120	3.345	3.555
20	1.480	2.020	2.560	3.020	3.480	3.820	4.160	4.460	4.740
25	1.850	2.525	3.200	3.775	4.350	4.775	5.200	5.575	5.925
30	2.220	3.030	3.840	4.530	5.220	5.730	6.240	6.690	7.110
35	2.590	3.535	4.480	5.285	6.090	6.685	7.280	7.805	8.295
40	2.960	4.040	5.120	6.040	6.960	7.640	8.320	8.920	9.480
45	3.330	4.545	5.760	6.795	7.830	8.595	9.360	10.035	10.665
50	3.700	5.050	6.400	7.550	8.700	9.550	10.400	11.150	11.850
55	4.070	5.555	7.040	8.305	9.570	10.505	11.440	12.265	13.035
60	4.440	6.060	7.680	9.060	10.440	11.460	12.480	13.380	14.220
65	4.810	6.565	8.320	9.815	11.310	12.415	13.520	14.495	15.405
70	5.180	7.070	8.960	10.570	12.180	13.370	14.560	15.610	16.590
75	5.550	7.575	9.600	11.325	13.050	14.325	15.600	16.725	17.775
80	5.920	8.080	10.240	12.080	13.920	15.280	16.640	17.840	18.960
85	6.290	8.585	10.880	12.835	14.790	16.235	17.680	18.955	20.145
90	6.660	9.090	11.520	13.590	15.660	17.190	18.720	20.070	21.330
95	7.030	9.595	12.160	14.345	16.530	18.145	19.760	21.185	22.515
100	7.400	10.100	12.800	15.100	17.400	19.100	20.800	22.300	23.700

SCRIBNER RULE HEAVY SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
LIGHT SAWTIMBER (AVG 14" DBH)
MBF/Acre - Doyle rule - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.225	0.290	0.350	0.395	0.435	0.460	0.480		
10	0.450	0.580	0.700	0.790	0.870	0.920	0.960		
15	0.675	0.870	1.050	1.185	1.305	1.380	1.440		
20	0.900	1.160	1.400	1.580	1.740	1.840	1.920		
25	1.125	1.450	1.750	1.975	2.175	2.300	2.400		
30	1.350	1.740	2.100	2.370	2.610	2.760	2.880		
35	1.575	2.030	2.450	2.765	3.045	3.220	3.360		
40	1.800	2.320	2.800	3.160	3.480	3.680	3.840		
45	2.025	2.610	3.150	3.555	3.915	4.140	4.320		
50	2.250	2.900	3.500	3.950	4.350	4.600	4.800		
55	2.475	3.190	3.850	4.345	4.785	5.060	5.280		
60	2.700	3.480	4.200	4.740	5.220	5.520	5.760		
65	2.925	3.770	4.550	5.135	5.655	5.980	6.240		
70	3.150	4.060	4.900	5.530	6.090	6.440	6.720		
75	3.375	4.350	5.250	5.925	6.525	6.900	7.200		
80	3.600	4.640	5.600	6.320	6.960	7.360	7.680		
85	3.825	4.930	5.950	6.715	7.395	7.820	8.160		
90	4.050	5.220	6.300	7.110	7.830	8.280	8.640		
95	4.275	5.510	6.650	7.505	8.265	8.740	9.120		
100	4.500	5.800	7.000	7.900	8.700	9.200	9.600		

DOYLE RULE LIGHT SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
MEDIUM SAWTIMBER (AVG 18" DBH)
MBF/Acre - Doyle - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.285	0.375	0.465	0.540	0.610	0.655	0.700		
10	0.570	0.750	0.930	1.080	1.220	1.310	1.400		
15	0.855	1.125	1.395	1.620	1.830	1.965	2.100		
20	1.140	1.500	1.860	2.160	2.440	2.620	2.800		
25	1.425	1.875	2.325	2.700	3.050	3.275	3.500		
30	1.710	2.250	2.790	3.240	3.660	3.930	4.200		
35	1.995	2.625	3.255	3.780	4.270	4.585	4.900		
40	2.280	3.000	3.720	4.320	4.880	5.240	5.600		
45	2.565	3.375	4.185	4.860	5.490	5.895	6.300		
50	2.850	3.750	4.650	5.400	6.100	6.550	7.000		
55	3.135	4.125	5.115	5.940	6.710	7.205	7.700		
60	3.420	4.500	5.580	6.480	7.320	7.860	8.400		
65	3.705	4.875	6.045	7.020	7.930	8.515	9.100		
70	3.990	5.250	6.510	7.560	8.540	9.170	9.800		
75	4.275	5.625	6.975	8.100	9.150	9.825	10.500		
80	4.560	6.000	7.440	8.640	9.760	10.480	11.200		
85	4.845	6.375	7.905	9.180	10.370	11.135	11.900		
90	5.130	6.750	8.370	9.720	10.980	11.790	12.600		
95	5.415	7.125	8.835	10.260	11.590	12.445	13.300		
100	5.700	7.500	9.300	10.800	12.200	13.100	14.000		

DOYLE RULE MEDIUM SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
HEAVY SAWTIMBER (AVG 18" DBH)
MBF/Acre - Doyle rule - Form Class 78

	Average Height (# of 16' logs)								
BA/Acre	1	1.5	2	2.5	3	3.5	4	4.5	5
5	0.330	0.445	0.560	0.650	0.745	0.810	0.875	0.935	0.990
10	0.660	0.890	1.120	1.300	1.490	1.620	1.750	1.870	1.980
15	0.990	1.335	1.680	1.950	2.235	2.430	2.625	2.805	2.970
20	1.320	1.780	2.240	2.600	2.980	3.240	3.500	3.740	3.960
25	1.650	2.225	2.800	3.250	3.725	4.050	4.375	4.675	4.950
30	1.980	2.670	3.360	3.900	4.470	4.860	5.250	5.610	5.940
35	2.310	3.115	3.920	4.550	5.215	5.670	6.125	6.545	6.930
40	2.640	3.560	4.480	5.200	5.960	6.480	7.000	7.480	7.920
45	2.970	4.005	5.040	5.850	6.705	7.290	7.875	8.415	8.910
50	3.300	4.450	5.600	6.500	7.450	8.100	8.750	9.350	9.900
55	3.630	4.895	6.160	7.150	8.195	8.910	9.625	10.285	10.890
60	3.960	5.340	6.720	7.800	8.940	9.720	10.500	11.220	11.880
65	4.290	5.785	7.280	8.450	9.685	10.530	11.375	12.155	12.870
70	4.620	6.230	7.840	9.100	10.430	11.340	12.250	13.090	13.860
75	4.950	6.675	8.400	9.750	11.175	12.150	13.125	14.025	14.850
80	5.280	7.120	8.960	10.400	11.920	12.960	14.000	14.960	15.840
85	5.610	7.565	9.520	11.050	12.665	13.770	14.875	15.895	16.830
90	5.940	8.010	10.080	11.700	13.410	14.580	15.750	16.830	17.820
95	6.270	8.455	10.640	12.350	14.155	15.390	16.625	17.765	18.810
100	6.600	8.900	11.200	13.000	14.900	16.200	17.500	18.700	19.800

DOYLE RULE HEAVY SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
LIGHT SPRUCE-FIR SAWTIMBER (AVG 10" DBH)
MBF/Acre - International rule - Form Class 78

	Average Height (# of 16' logs)				
BA/Acre	1	1.5	2	2.5	3
5	0.330	0.430	0.530		
10	0.660	0.860	1.060		
15	0.990	1.290	1.590		
20	1.320	1.720	2.120		
25	1.650	2.150	2.650		
30	1.980	2.580	3.180		
35	2.310	3.010	3.710		
40	2.640	3.440	4.240		
45	2.970	3.870	4.770		
50	3.300	4.300	5.300		
55	3.630	4.730	5.830		
60	3.960	5.160	6.360		
65	4.290	5.590	6.890		
70	4.620	6.020	7.420		
75	4.950	6.450	7.950		
80	5.280	6.880	8.480		
85	5.610	7.310	9.010		
90	5.940	7.740	9.540		
95	6.270	8.170	10.070		
100	6.600	8.600	10.600		
105	6.930	9.030	11.130		
110	7.260	9.460	11.660		
115	7.590	9.890	12.190		
120	7.920	10.320	12.720		
125	8.250	10.750	13.250		
130	8.580	11.180	13.780		
135	8.910	11.610	14.310		
140	9.240	12.040	14.840		
145	9.570	12.470	15.370		
150	9.900	12.900	15.900		

SPRUCE-FIR LIGHT SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
MEDIUM SPRUCE-FIR SAWTIMBER (AVG 14" DBH)
MBF/Acre - International rule - Form Class 78

	Average Height (# of 16' logs)				
BA/Acre	1	1.5	2	2.5	3
5	0.365	0.465	0.570	0.655	0.735
10	0.730	0.930	1.140	1.310	1.470
15	1.095	1.395	1.710	1.965	2.205
20	1.460	1.860	2.280	2.620	2.940
25	1.825	2.325	2.850	3.275	3.675
30	2.190	2.790	3.420	3.930	4.410
35	2.555	3.255	3.990	4.585	5.145
40	2.920	3.720	4.560	5.240	5.880
45	3.285	4.185	5.130	5.895	6.615
50	3.650	4.650	5.700	6.550	7.350
55	4.015	5.115	6.270	7.205	8.085
60	4.380	5.580	6.840	7.860	8.820
65	4.745	6.045	7.410	8.515	9.555
70	5.110	6.510	7.980	9.170	10.290
75	5.475	6.975	8.550	9.825	11.025
80	5.840	7.440	9.120	10.480	11.760
85	6.205	7.905	9.690	11.135	12.495
90	6.570	8.370	10.260	11.790	13.230
95	6.935	8.835	10.830	12.445	13.965
100	7.300	9.300	11.400	13.100	14.700
105	7.665	9.765	11.970	13.755	15.435
110	8.030	10.230	12.540	14.410	16.170
115	8.395	10.695	13.110	15.065	16.905
120	8.760	11.160	13.680	15.720	17.640
125	9.125	11.625	14.250	16.375	18.375
130	9.490	12.090	14.820	17.030	19.110
135	9.855	12.555	15.390	17.685	19.845
140	10.220	13.020	15.960	18.340	20.580
145	10.585	13.485	16.530	18.995	21.315
150	10.950	13.950	17.100	19.650	22.050

SPRUCE-FIR MEDIUM SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (MBF)
HEAVY SPRUCE-FIR SAWTIMBER (AVG 18" DBH)
MBF/Acre - International rule - Form Class 78

	Average Height (# of 16' logs)						
BA/Acre	1	1.5	2	2.5	3	3.5	4
5	0.385	0.490	0.595	0.680	0.760	0.830	0.900
10	0.750	0.960	1.170	1.340	1.500	1.660	1.800
15	1.125	1.440	1.755	2.010	2.250	2.490	2.700
20	1.500	1.920	2.340	2.680	3.000	3.320	3.600
25	1.875	2.400	2.925	3.350	3.750	4.150	4.500
30	2.250	2.880	3.510	4.020	4.500	4.980	5.400
35	2.625	3.360	4.095	4.690	5.250	5.810	6.300
40	3.000	3.840	4.680	5.360	6.000	6.640	7.200
45	3.375	4.320	5.265	6.030	6.750	7.470	8.100
50	3.750	4.800	5.850	6.700	7.500	8.300	9.000
55	4.125	5.280	6.435	7.370	8.250	9.130	9.900
60	4.500	5.760	7.020	8.040	9.000	9.960	10.800
65	4.875	6.240	7.605	8.710	9.750	10.790	11.700
70	5.250	6.720	8.190	9.380	10.500	11.620	12.600
75	5.625	7.200	8.775	10.050	11.250	12.450	13.500
80	6.000	7.680	9.360	10.720	12.000	13.280	14.400
85	6.375	8.160	9.945	11.390	12.750	14.110	15.300
90	6.750	8.640	10.530	12.060	13.500	14.940	16.200
95	7.125	9.120	11.115	12.730	14.250	15.770	17.100
100	7.500	9.600	11.700	13.400	15.000	16.600	18.000
105	7.875	10.080	12.285	14.070	15.750	17.430	18.900
110	8.250	10.560	12.870	14.740	16.500	18.260	19.800
115	8.625	11.040	13.455	15.410	17.250	19.090	20.700
120	9.000	11.520	14.040	16.080	18.000	19.920	21.600
125	9.375	12.000	14.625	16.750	18.750	20.750	22.500
130	9.750	12.480	15.210	17.420	19.500	21.580	23.400
135	10.125	12.960	15.795	18.090	20.250	22.410	24.300
140	10.500	13.440	16.380	18.760	21.000	23.240	25.200
145	10.875	13.920	16.965	19.430	21.750	24.070	26.100
150	11.250	14.400	17.550	20.100	22.500	24.900	27.000

SPRUCE-FIR HEAVY SAWTIMBER

SHORTCUT VOLUME PER ACRE TABLE (CORDS)

LAKE STATES PULPWOOD (AVG 14" DBH)

Cords per Acre

Average Height in Number of Eight-foot Bolts

BA/Acre	1	2.0	3	4	5	6	7	8	9	10
5	0.325	0.585	0.810	1.010	1.210	1.420	1.640	1.870	2.115	2.340
10	0.650	1.170	1.620	2.020	2.420	2.840	3.280	3.740	4.230	4.680
15	0.975	1.755	2.430	3.030	3.630	4.260	4.920	5.610	6.345	7.020
20	1.300	2.340	3.240	4.040	4.840	5.680	6.560	7.480	8.460	9.360
25	1.625	2.925	4.050	5.050	6.050	7.100	8.200	9.350	10.575	11.700
30	1.950	3.510	4.860	6.060	7.260	8.520	9.840	11.220	12.690	14.040
35	2.275	4.095	5.670	7.070	8.470	9.940	11.480	13.090	14.805	16.380
40	2.600	4.680	6.480	8.080	9.680	11.360	13.120	14.960	16.920	18.720
45	2.925	5.265	7.290	9.090	10.890	12.780	14.760	16.830	19.035	21.060
50	3.250	5.850	8.100	10.100	12.100	14.200	16.400	18.700	21.150	23.400
55	3.575	6.435	8.910	11.110	13.310	15.620	18.040	20.570	23.265	25.740
60	3.900	7.020	9.720	12.120	14.520	17.040	19.680	22.440	25.380	28.080
65	4.225	7.605	10.530	13.130	15.730	18.460	21.320	24.310	27.495	30.420
70	4.550	8.190	11.340	14.140	16.940	19.880	22.960	26.180	29.610	32.760
75	4.875	8.775	12.150	15.150	18.150	21.300	24.600	28.050	31.725	35.100
80	5.200	9.360	12.960	16.160	19.360	22.720	26.240	29.920	33.840	37.440
85	5.525	9.945	13.770	17.170	20.570	24.140	27.880	31.790	35.955	39.780
90	5.850	10.530	14.580	18.180	21.780	25.560	29.520	33.660	38.070	42.120
95	6.175	11.115	15.390	19.190	22.990	26.980	31.160	35.530	40.185	44.460
100	6.500	11.700	16.200	20.200	24.200	28.400	32.800	37.400	42.300	46.800
105	6.825	12.285	17.010	21.210	25.410	29.820	34.440	39.270	44.415	49.140
110	7.150	12.870	17.820	22.220	26.620	31.240	36.080	41.140	46.530	51.480
115	7.475	13.455	18.630	23.230	27.830	32.660	37.720	43.010	48.645	53.820
120	7.800	14.040	19.440	24.240	29.040	34.080	39.360	44.880	50.760	56.160
125	8.125	14.625	20.250	25.250	30.250	35.500	41.000	46.750	52.875	58.500
130	8.450	15.210	21.060	26.260	31.460	36.920	42.640	48.620	54.990	60.840
135	8.775	15.795	21.870	27.270	32.670	38.340	44.280	50.490	57.105	63.180
140	9.100	16.380	22.680	28.280	33.880	39.760	45.920	52.360	59.220	65.520
145	9.425	16.965	23.490	29.290	35.090	41.180	47.560	54.230	61.335	67.860
150	9.750	17.550	24.300	30.300	36.300	42.600	49.200	56.100	63.450	70.200

LAKES STATES PULPWOOD (CORDS)

SHORTCUT VOLUME PER ACRE TABLE (CORDS)
Small Diameter Hdwd. Pulpwood (AVG 10" DBH)
Cords/Acre - Form Class 78

	Height in Feet					
BA/Acre	16'	24'	32'	40'	48'	56'
5	0.6	1.0	1.3	1.6		
10	1.3	1.9	2.6	3.2		
15	1.9	2.9	3.9	4.8		
20	2.6	3.9	5.1	6.4		
25	3.2	4.8	6.4	8.0		
30	3.8	5.8	7.7	9.6		
35	4.5	6.8	9.0	11.2		
40	5.1	7.7	10.3	12.8		
45	5.8	8.7	11.6	14.4		
50	6.4	9.7	12.9	16.1		
55	7.0	10.6	14.1	17.7		
60	7.7	11.6	15.4	19.3		
65	8.3	12.5	16.7	20.9		
70	9.0	13.5	18.0	22.5		
75	9.6	14.5	19.3	24.1		
80	10.2	15.4	20.6	25.7		
85	10.9	16.4	21.8	27.3		
90	11.5	17.4	23.1	28.9		
95	12.2	18.3	24.4	30.5		
100	12.8	19.3	25.7	32.1		

PULPWOOD CORDS

SHORTCUT VOLUME PER ACRE TABLE (CORDS)
Medium Diameter Hdwd. Pulpwood (AVG 14" DBH)
Cords/Acre - Form Class 78

	Height in Feet					
BA/Acre	16'	24'	32'	40'	48'	56'
5		1.0	1.3	1.6	1.9	2.2
10		1.9	2.6	3.2	3.9	4.5
15		2.9	3.9	4.8	5.8	6.7
20		3.8	5.1	6.4	7.7	9.0
25		4.8	6.4	8.0	9.6	11.2
30		5.8	7.7	9.6	11.6	13.4
35		6.7	9.0	11.2	13.5	15.7
40		7.7	10.3	12.8	15.4	17.9
45		8.6	11.6	14.4	17.3	20.2
50		9.6	12.9	16.0	19.3	22.4
55		10.6	14.1	17.6	21.2	24.6
60		11.5	15.4	19.2	23.1	26.9
65		12.5	16.7	20.8	25.0	29.1
70		13.4	18.0	22.4	27.0	31.4
75		14.4	19.3	24.0	28.9	33.6
80		15.4	20.6	25.6	30.8	35.8
85		16.3	21.8	27.2	32.7	38.1
90		17.3	23.1	28.8	34.7	40.3
95		18.2	24.4	30.4	36.6	42.6
100		19.2	25.7	32.0	38.5	44.8

PULPWOOD CORDS

SHORTCUT VOLUME PER ACRE TABLE (CORDS)

Large Diameter Hdwd. Pulpwood (AVG 18" DBH)

Cords/Acre - Form Class 78

	Height in Feet					
BA/Acre	16'	24'	32'	40'	48'	56'
5			1.3	1.6	1.9	2.2
10			2.6	3.2	3.9	4.5
15			3.9	4.8	5.8	6.7
20			5.1	6.4	7.7	9.0
25			6.4	8.0	9.6	11.2
30			7.7	9.6	11.6	13.5
35			9.0	11.2	13.5	15.7
40			10.3	12.8	15.4	18.0
45			11.6	14.4	17.3	20.2
50			12.9	16.1	19.3	22.5
55			14.1	17.7	21.2	24.7
60			15.4	19.3	23.1	26.9
65			16.7	20.9	25.0	29.2
70			18.0	22.5	27.0	31.4
75			19.3	24.1	28.9	33.7
80			20.6	25.7	30.8	35.9
85			21.8	27.3	32.7	38.2
90			23.1	28.9	34.7	40.4
95			24.4	30.5	36.6	42.7
100			25.7	32.1	38.5	44.9

PULPWOOD CORDS

SHORTCUT VOLUME PER ACRE TABLE (TONS)
Small Diameter Hdwd. Pulpwood (AVG 10" DBH)
Tons/Acre - Form Class 78

	Height in Feet					
BA/Acre	16'	24'	32'	40'	48'	56'
5	1.6	2.4	3.2	4.0		
10	3.2	4.8	6.4	8.0		
15	4.8	7.2	9.6	12.0		
20	6.4	9.7	12.9	16.1		
25	8.0	12.1	16.1	20.1		
30	9.6	14.5	19.3	24.1		
35	11.2	16.9	22.5	28.1		
40	12.8	19.3	25.7	32.1		
45	14.4	21.7	28.9	36.1		
50	16.0	24.1	32.1	40.1		
55	17.6	26.5	35.3	44.1		
60	19.2	29.0	38.6	48.2		
65	20.8	31.4	41.8	52.2		
70	22.4	33.8	45.0	56.2		
75	24.0	36.2	48.2	60.2		
80	25.6	38.6	51.4	64.2		
85	27.2	41.0	54.6	68.2		
90	28.8	43.4	57.8	72.2		
95	30.4	45.8	61.0	76.2		
100	32.0	48.3	64.3	80.3		

PULPWOOD TONS

SHORTCUT VOLUME PER ACRE TABLE (TONS)
Medium Diameter Hdwd. Pulpwood (AVG 14" DBH)
Tons/Acre - Form Class 78

	Height in Feet					
BA/Acre	16'	24'	32'	40'	48'	56'
5		2.4	3.2	4.0	4.8	5.6
10		4.8	6.4	8.0	9.6	11.2
15		7.2	9.6	12.0	14.4	16.8
20		9.6	12.9	16.0	19.3	22.4
25		12.0	16.1	20.0	24.1	28.0
30		14.4	19.3	24.0	28.9	33.6
35		16.8	22.5	28.0	33.7	39.2
40		19.2	25.7	32.0	38.5	44.8
45		21.6	28.9	36.0	43.3	50.4
50		24.0	32.1	40.0	48.1	56.0
55		26.4	35.3	44.0	52.9	61.6
60		28.8	38.6	48.0	57.8	67.2
65		31.2	41.8	52.0	62.6	72.8
70		33.6	45.0	56.0	67.4	78.4
75		36.0	48.2	60.0	72.2	84.0
80		38.4	51.4	64.0	77.0	89.6
85		40.8	54.6	68.0	81.8	95.2
90		43.2	57.8	72.0	86.6	100.8
95		45.6	61.0	76.0	91.4	106.4
100		48.0	64.3	80.0	96.3	112.0

PULPWOOD TONS

SHORTCUT VOLUME PER ACRE TABLE (TONS)

Large Diameter Hdwd. Pulpwood (AVG 18" DBH)

Tons/Acre - Form Class 78

	Height in Feet					
BA/Acre	16'	24'	32'	40'	48'	56'
5			3.2	4.0	4.8	5.6
10			6.4	8.0	9.6	11.2
15			9.6	12.0	14.4	16.8
20			12.9	16.1	19.3	22.5
25			16.1	20.1	24.1	28.1
30			19.3	24.1	28.9	33.7
35			22.5	28.1	33.7	39.3
40			25.7	32.1	38.5	44.9
45			28.9	36.1	43.3	50.5
50			32.1	40.1	48.1	56.1
55			35.3	44.1	52.9	61.7
60			38.6	48.2	57.8	67.4
65			41.8	52.2	62.6	73.0
70			45.0	56.2	67.4	78.6
75			48.2	60.2	72.2	84.2
80			51.4	64.2	77.0	89.8
85			54.6	68.2	81.8	95.4
90			57.8	72.2	86.6	101.0
95			61.0	76.2	91.4	106.6
100			64.3	80.3	96.3	112.3

PULPWOOD TONS

SHORTCUT VOLUME PER ACRE TABLE (Whole Tree Green Tons)
Combined Hardwood Species
TONS / Acre

	Average Total Tree Height in Feet					
BA/Acre	15	30	50	65	80	95
5	1.5	2.8	4.4	5.7	9.0	8.2
10	3.0	5.5	8.8	11.3	18.0	16.3
15	4.5	8.3	13.2	17.0	27.0	24.5
20	6.0	11.0	17.6	22.6	36.0	32.6
25	7.5	13.8	22.0	28.3	45.0	40.8
30	9.0	16.5	26.4	33.9	54.0	48.9
35	10.5	19.3	30.8	39.6	63.0	57.1
40	12.0	22.0	35.2	45.2	72.0	65.2
45	13.5	24.8	39.6	50.9	81.0	73.4
50	15.0	27.5	44.0	56.5	90.0	81.5
55	16.5	30.3	48.4	62.2	99.0	89.7
60	18.0	33.0	52.8	67.8	108.0	97.8
65	19.5	35.8	57.2	73.5	117.0	106.0
70	21.0	38.5	61.6	79.1	126.0	114.1
75	22.5	41.3	66.0	84.8	135.0	122.3
80	24.0	44.0	70.4	90.4	144.0	130.4
85	25.5	46.8	74.8	96.1	153.0	138.6
90	27.0	49.5	79.2	101.7	162.0	146.7
95	28.5	52.3	83.6	107.4	171.0	154.9
100	30.0	55.0	88.0	113.0	180.0	163.0

SHORTCUT VOLUME PER ACRE TABLE (Whole Tree Green Tons)
Combined Softwood Species
TONS / Acre

	Average Total Tree Height in Feet					
BA/Acre	15	30	50	65	80	95
5	1.8	2.8	4.2	5.3	6.4	7.4
10	3.5	5.6	8.4	10.6	12.7	14.8
15	5.3	8.4	12.6	15.9	19.1	22.2
20	7.0	11.2	16.8	21.2	25.4	29.6
25	8.8	14.0	21.0	26.5	31.8	37.0
30	10.5	16.8	25.2	31.8	38.1	44.4
35	12.3	19.6	29.4	37.1	44.5	51.8
40	14.0	22.4	33.6	42.4	50.8	59.2
45	15.8	25.2	37.8	47.7	57.2	66.6
50	17.5	28.0	42.0	53.0	63.5	74.0
55	19.3	30.8	46.2	58.3	69.9	81.4
60	21.0	33.6	50.4	63.6	76.2	88.8
65	22.8	36.4	54.6	68.9	82.6	96.2
70	24.5	39.2	58.8	74.2	88.9	103.6
75	26.3	42.0	63.0	79.5	95.3	111.0
80	28.0	44.8	67.2	84.8	101.6	118.4
85	29.8	47.6	71.4	90.1	108.0	125.8
90	31.5	50.4	75.6	95.4	114.3	133.2
95	33.3	53.2	79.8	100.7	120.7	140.6
100	35.0	56.0	84.0	106.0	127.0	148.0

SHORTCUT VOLUME PER ACRE TABLE (Whole Tree Green Tons)
Beech
TONS / Acre

	Average Total Tree Height in Feet					
BA/Acre	15	30	50	65	80	95
5	1.9	3.4	5.4	6.9	8.4	9.9
10	3.8	6.8	10.8	13.8	16.8	19.8
15	5.7	10.2	16.2	20.7	25.2	29.7
20	7.6	13.6	21.6	27.6	33.6	39.6
25	9.5	17.0	27.0	34.5	42.0	49.5
30	11.4	20.4	32.4	41.4	50.4	59.4
35	13.3	23.8	37.8	48.3	58.8	69.3
40	15.2	27.2	43.2	55.2	67.2	79.2
45	17.1	30.6	48.6	62.1	75.6	89.1
50	19.0	34.0	54.0	69.0	84.0	99.0
55	20.9	37.4	59.4	75.9	92.4	108.9
60	22.8	40.8	64.8	82.8	100.8	118.8
65	24.7	44.2	70.2	89.7	109.2	128.7
70	26.6	47.6	75.6	96.6	117.6	138.6
75	28.5	51.0	81.0	103.5	126.0	148.5
80	30.4	54.4	86.4	110.4	134.4	158.4
85	32.3	57.8	91.8	117.3	142.8	168.3
90	34.2	61.2	97.2	124.2	151.2	178.2
95	36.1	64.6	102.6	131.1	159.6	188.1
100	38.0	68.0	108.0	138.0	168.0	198.0

SHORTCUT VOLUME PER ACRE TABLE (Whole Tree Green Tons)
Soft maple
TONS / Acre

	Average Total Tree Height in Feet					
BA/Acre	15	30	50	65	80	95
5	1.3	2.5	4.1	5.4	6.6	7.8
10	2.6	5.0	8.2	10.7	13.1	15.5
15	3.9	7.5	12.3	16.1	19.7	23.3
20	5.2	10.0	16.4	21.4	26.2	31.0
25	6.5	12.5	20.5	26.8	32.8	38.8
30	7.8	15.0	24.6	32.1	39.3	46.5
35	9.1	17.5	28.7	37.5	45.9	54.3
40	10.4	20.0	32.8	42.8	52.4	62.0
45	11.7	22.5	36.9	48.2	59.0	69.8
50	13.0	25.0	41.0	53.5	65.5	77.5
55	14.3	27.5	45.1	58.9	72.1	85.3
60	15.6	30.0	49.2	64.2	78.6	93.0
65	16.9	32.5	53.3	69.6	85.2	100.8
70	18.2	35.0	57.4	74.9	91.7	108.5
75	19.5	37.5	61.5	80.3	98.3	116.3
80	20.8	40.0	65.6	85.6	104.8	124.0
85	22.1	42.5	69.7	91.0	111.4	131.8
90	23.4	45.0	73.8	96.3	117.9	139.5
95	24.7	47.5	77.9	101.7	124.5	147.3
100	26.0	50.0	82.0	107.0	131.0	155.0