

APPENDIX 3: STOCKING LEVEL TABLES (DOUGLAS-FIR SERIES)

This appendix provides suggested stocking levels in a series of tables grouped by plant association and forest series. Each of the 44 upland-forest associations has one to seven tables, depending on the number of tree species associated with it (table 2). The order of these tables follows the order used in table 2, both for the plant associations (the rows in table 2) and for the tree species (the columns of table 2). Note that the tables differ from the stocking-level figures in appendix 2 because they do not include any information about the full-stocking level; only the upper and lower limits of the management zone are described in this appendix.

Each table consists of 17 columns arranged in three sections. Two of the sections are also divided into subsections, as illustrated in the example below. Each section or subsection will be described individually.

Table 1: Stocking levels for subalpine fir in the ABLA2/TRCA3 plant association (full stocking = 382).

QMD	UPPER MANAGEMENT ZONE (SDI = 287)								LOWER MANAGEMENT ZONE (SDI = 191)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	15323	14426	13340	1.8	84	79	73	72	10215	9618	8893	2.2	56	52	49	65
1.2	11178	10524	9731	2.1	88	83	76	73	7452	7016	6488	2.6	59	55	51	66
1.4	8561	8060	7453	2.4	92	86	80	73	5707	5374	4969	3.0	61	57	53	66
1.6	6795	6398	5916	2.7	95	89	83	74	4530	4265	3944	3.3	63	60	55	67
1.8	5543	5218	4825	3.0	98	92	85	75	3695	3479	3217	3.7	65	61	57	68
2.0	4619	4349	4021	3.3	101	95	88	75	3079	2899	2681	4.0	67	63	58	68
Section 1	Subsection One				Subsection Two				Subsection One				Subsection Two			
	Section Two								Section Three							

Section One: QMD. The first section is a single column providing quadratic mean diameters (QMDs) ranging from 1.0 to 10.0 inches in 0.2-inch increments, and from 10.5 to 30.0 inches in 0.5-inch increments (excluding 29.5 inches). Smaller increments were used for QMDs below 10 inches because the additional detail is useful when preparing silvicultural prescriptions for treatments such as precommercial thinning. If more detail is needed than is shown in the tables, intermediate values could be interpolated.

Section Two: ULMZ. The second section of each table, which consists of eight columns divided into two subsections, provides information about the upper limit of the management zone (ULMZ). The ULMZ can be thought of as a constant level of stand density index (SDI); the actual SDI level selected as an ULMZ is shown in the section heading, e.g., “Upper Management Zone (SDI = 287).” Refer to the “Derivation of the Stocking Level Information” section, page 15 (Upper Limit of the Management Zone), for information about how the SDI level was calculated for the ULMZ.

The first subsection of section two provides trees per acre calculations based on the SDI level established for the ULMZ, and the QMD given in column 1. The first column in this subsection provides the trees per acre associated with an even-aged stand structure, the next column provides it for an irregular structure, and the third column shows it for an uneven-aged stand. Note that the lodgepole pine tables do not include a trees per acre value for an uneven-aged stand because that structure is rare in primary lodgepole forest, and because establishment of an uneven-aged structure has not been a management objective for stands where lodgepole is the dominant or featured species.

The fourth column in subsection one shows the equilateral spacing associated with the trees per acre value for an even-aged stand structure. Spacing calculations were always based on even-aged stands because that structure presumably has the most consistent inter-tree distances; the equilateral spacing values shown in this column would not apply to trees left in clumps or in other irregular arrangements. Note that the lodgepole pine tables provide two measures of inter-tree distance – an equilateral spacing as described above, and a square spacing value that might be helpful when preparing silvicultural prescriptions for treatments in young lodgepole stands at very small QMDs. The square spacing calculation was also based on an even-aged stand structure.

Subsection two of section two provides basal area per acre calculations based on the SDI level established for the ULMZ, and the QMD given in column 1. As described above for subsection one (trees per acre), this subsection provides basal areas per acre for an even-aged, irregular, and uneven-aged structure (once again, an uneven-aged value was not calculated for lodgepole pine).

The fourth column in subsection two shows the forest (tree) canopy cover percentage associated with the basal area per acre for an even-aged or irregular stand structure. For Douglas-fir, ponderosa pine, Engelmann spruce, grand fir, and subalpine fir, canopy cover values pertain to an irregular structure because it best reflects the unmanaged stands that were sampled to derive the mathematical formulas used for the calculations. For lodgepole pine and western larch, canopy cover values pertain to even-aged stands because unmanaged stands tend to be even-aged for those species. Lodgepole pine has two canopy cover values – one pertaining to unmanaged stands, and another for managed stands (defined as those thinned early in life, before they attained a mean stand height of nine feet).

Section Three: LLMZ. The third section of each table, which consists of eight columns divided into two subsections, provides information about the lower limit of the management zone (LLMZ). The LLMZ can be thought of as a constant level of stand density index (SDI); the actual SDI level selected as a LLMZ is shown in the section heading, e.g., “Lower Management Zone (SDI = 191).” Refer to the “Derivation of the Stocking Level Information” section, page 16 (Lower Limit of the Management Zone), for information about how the SDI level was calculated for the LLMZ.

Subsection one of section three provides trees per acre calculations based on the SDI level established for the LLMZ, and the QMD given in column 1. As was described above for section two (ULMZ), this subsection provides trees per acre for an even-aged, irregular, and uneven-aged structure (once again, an uneven-aged value was not included in the lodgepole pine tables). The fourth column in this subsection shows the equilateral spacing associated with the trees per acre value for an even-aged stand structure.

Subsection two of section three provides basal area per acre calculations based on the SDI level established for the LLMZ, and the QMD given in column 1. As described above for subsection one (trees per acre), this subsection provides basal areas per acre for an even-aged, irregular, and uneven-aged structure (once again, an uneven-aged value was not calculated for lodgepole pine). The fourth column in this subsection shows the forest (tree) canopy cover associated with the basal area per acre for an even-aged or irregular stand structure, and was calculated as described above for section two.

Footnotes at the end of each table describe the column heading codes, and summarize how the calculations were made for each item. All of the calculations resulting in the figures in appendix 2, and the tables in appendix 3, were made in a computerized spreadsheet program. Calculation methodology followed the instructions from Cochran and others (1994) – see their appendix 2 (page 19) for more information. Further information about how the calculations were made for this publication can be obtained from the author. The information in this appendix could also be derived using a computer program called SDI. Refer to the “Customizing the Stocking-Level Information” section, page 30, for more information about the SDI program and how to obtain it.

Table 91: Stocking levels for ponderosa pine in the PSME/ACGL-PHMA plant association
(full stocking = 281).

QMD	UPPER MANAGEMENT ZONE (SDI = 189)								LOWER MANAGEMENT ZONE (SDI = 127)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	11069	10294	9637	2.1	60	56	53	47	7416	6897	6457	2.6	40	38	35	40
1.2	8016	7455	6979	2.5	63	59	55	48	5371	4995	4676	3.1	42	39	37	41
1.4	6102	5675	5312	2.9	65	61	57	49	4088	3802	3559	3.5	44	41	38	41
1.6	4817	4480	4194	3.2	67	63	59	49	3228	3002	2810	3.9	45	42	39	42
1.8	3911	3637	3405	3.6	69	64	60	50	2620	2437	2281	4.4	46	43	40	43
2.0	3246	3018	2826	3.9	71	66	62	50	2174	2022	1893	4.8	47	44	41	43
2.2	2742	2550	2387	4.3	72	67	63	51	1837	1708	1599	5.2	48	45	42	43
2.4	2350	2186	2046	4.6	74	69	64	51	1575	1465	1371	5.7	49	46	43	44
2.6	2040	1897	1776	5.0	75	70	65	51	1367	1271	1190	6.1	50	47	44	44
2.8	1789	1664	1558	5.3	77	71	67	52	1199	1115	1044	6.5	51	48	45	44
3.0	1583	1473	1379	5.6	78	72	68	52	1061	987	924	6.9	52	48	45	45
3.2	1413	1314	1230	6.0	79	73	69	52	946	880	824	7.3	53	49	46	45
3.4	1269	1180	1105	6.3	80	74	70	53	850	791	740	7.7	54	50	47	45
3.6	1147	1066	998	6.6	81	75	71	53	768	715	669	8.1	54	51	47	45
3.8	1042	969	907	6.9	82	76	71	53	698	649	608	8.5	55	51	48	46
4.0	952	885	828	7.3	83	77	72	53	638	593	555	8.9	56	52	48	46
4.2	873	812	760	7.6	84	78	73	54	585	544	509	9.3	56	52	49	46
4.4	804	748	700	7.9	85	79	74	54	539	501	469	9.7	57	53	50	46
4.6	743	691	647	8.2	86	80	75	54	498	463	433	10.1	57	53	50	46
4.8	689	641	600	8.5	87	81	75	54	462	429	402	10.4	58	54	51	47
5.0	641	596	558	8.9	87	81	76	54	430	399	374	10.8	59	54	51	47
5.2	598	556	521	9.2	88	82	77	54	401	373	349	11.2	59	55	51	47
5.4	559	520	487	9.5	89	83	77	55	375	349	326	11.6	60	55	52	47
5.6	525	488	457	9.8	90	83	78	55	351	327	306	12.0	60	56	52	47
5.8	493	458	429	10.1	90	84	79	55	330	307	288	12.3	61	56	53	47
6.0	464	432	404	10.4	91	85	79	55	311	289	271	12.7	61	57	53	48
6.2	438	407	381	10.7	92	85	80	55	294	273	256	13.1	62	57	54	48
6.4	414	385	361	11.0	93	86	81	55	277	258	242	13.5	62	58	54	48
6.6	392	365	341	11.3	93	87	81	55	263	244	229	13.8	62	58	54	48
6.8	372	346	324	11.6	94	87	82	56	249	232	217	14.2	63	58	55	48
7.0	353	329	308	11.9	94	88	82	56	237	220	206	14.6	63	59	55	48
7.2	336	313	293	12.2	95	88	83	56	225	210	196	14.9	64	59	55	48
7.4	320	298	279	12.5	96	89	83	56	215	200	187	15.3	64	60	56	49
7.6	306	284	266	12.8	96	90	84	56	205	190	178	15.7	64	60	56	49
7.8	292	271	254	13.1	97	90	84	56	196	182	170	16.0	65	60	56	49
8.0	279	259	243	13.4	97	91	85	56	187	174	163	16.4	65	61	57	49
8.2	267	248	233	13.7	98	91	85	56	179	166	156	16.8	66	61	57	49
8.4	256	238	223	14.0	98	92	86	56	171	159	149	17.1	66	61	57	49
8.6	245	228	214	14.3	99	92	86	57	164	153	143	17.5	66	62	58	49
8.8	236	219	205	14.6	100	93	87	57	158	147	137	17.8	67	62	58	49
9.0	227	211	197	14.9	100	93	87	57	152	141	132	18.2	67	62	58	49
9.2	218	203	190	15.2	101	94	88	57	146	136	127	18.6	67	63	59	49
9.4	210	195	183	15.5	101	94	88	57	141	131	122	18.9	68	63	59	50
9.6	202	188	176	15.8	102	94	88	57	135	126	118	19.3	68	63	59	50
9.8	195	181	170	16.1	102	95	89	57	131	121	114	19.6	68	64	60	50
10.0	188	175	164	16.4	103	95	89	57	126	117	110	20.0	69	64	60	50
10.5	172	160	150	17.1	104	96	90	57	116	107	101	20.9	69	65	60	50

Table 91: Stocking levels for ponderosa pine in the PSME/ACGL-PHMA plant association
(full stocking = 281).

QMD	UPPER MANAGEMENT ZONE (SDI = 189)								LOWER MANAGEMENT ZONE (SDI = 127)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	159	148	138	17.8	105	97	91	58	106	99	93	21.7	70	65	61	50
11.5	147	137	128	18.5	106	98	92	58	98	91	86	22.6	71	66	62	50
12.0	136	127	119	19.2	107	99	93	58	91	85	79	23.5	72	67	62	51
12.5	127	118	110	19.9	108	100	94	58	85	79	74	24.3	72	67	63	51
13.0	118	110	103	20.6	109	101	95	58	79	74	69	25.2	73	68	64	51
13.5	111	103	96	21.3	110	102	96	58	74	69	64	26.1	74	68	64	51
14.0	104	96	90	22.0	111	103	96	59	69	65	60	26.9	74	69	65	51
14.5	97	91	85	22.7	112	104	97	59	65	61	57	27.8	75	70	65	51
15.0	92	85	80	23.4	113	105	98	59	61	57	53	28.6	75	70	66	52
15.5	87	80	75	24.1	113	105	99	59	58	54	50	29.5	76	71	66	52
16.0	82	76	71	24.8	114	106	99	59	55	51	48	30.3	77	71	67	52
16.5	77	72	67	25.5	115	107	100	59	52	48	45	31.1	77	72	67	52
17.0	73	68	64	26.2	116	108	101	59	49	46	43	32.0	78	72	68	52
17.5	70	65	61	26.8	117	108	102	60	47	43	41	32.8	78	73	68	52
18.0	66	62	58	27.5	117	109	102	60	44	41	39	33.6	79	73	68	52
18.5	63	59	55	28.2	118	110	103	60	42	39	37	34.4	79	74	69	52
19.0	60	56	53	28.9	119	111	103	60	40	38	35	35.3	80	74	69	53
19.5	58	54	50	29.5	120	111	104	60	39	36	34	36.1	80	74	70	53
20.0	55	51	48	30.2	120	112	105	60	37	34	32	36.9	81	75	70	53
20.5	53	49	46	30.9	121	112	105	60	35	33	31	37.7	81	75	71	53
21.0	51	47	44	31.5	122	113	106	60	34	32	29	38.5	81	76	71	53
21.5	48	45	42	32.2	122	114	106	60	32	30	28	39.3	82	76	71	53
22.0	47	43	41	32.9	123	114	107	61	31	29	27	40.2	82	77	72	53
22.5	45	42	39	33.5	124	115	108	61	30	28	26	41.0	83	77	72	53
23.0	43	40	37	34.2	124	115	108	61	29	27	25	41.8	83	77	72	53
23.5	41	39	36	34.8	125	116	109	61	28	26	24	42.6	84	78	73	53
24.0	40	37	35	35.5	125	117	109	61	27	25	23	43.4	84	78	73	54
24.5	38	36	34	36.2	126	117	110	61	26	24	22	44.2	84	79	73	54
25.0	37	35	32	36.8	127	118	110	61	25	23	22	45.0	85	79	74	54
25.5	36	33	31	37.5	127	118	111	61	24	22	21	45.8	85	79	74	54
26.0	35	32	30	38.1	128	119	111	61	23	22	20	46.6	86	80	75	54
26.5	33	31	29	38.8	128	119	112	61	22	21	20	47.3	86	80	75	54
27.0	32	30	28	39.4	129	120	112	61	22	20	19	48.1	86	80	75	54
27.5	31	29	27	40.0	129	120	113	62	21	20	18	48.9	87	81	75	54
28.0	30	28	26	40.7	130	121	113	62	20	19	18	49.7	87	81	76	54
28.5	29	27	26	41.3	130	121	114	62	20	18	17	50.5	87	81	76	54
29.0	29	27	25	42.0	131	122	114	62	19	18	17	51.3	88	82	76	54
30.0	27	25	23	43.2	132	123	115	62	18	17	16	52.8	88	82	77	54

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 92: Stocking levels for Douglas-fir in the PSME/ACGL–PHMA plant association
(full stocking = 277).

QMD	UPPER MANAGEMENT ZONE (SDI = 208)								LOWER MANAGEMENT ZONE (SDI = 139)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	6742	6348	5870	2.7	37	35	32	57	4495	4232	3913	3.3	25	23	21	50
1.2	5119	4820	4457	3.1	40	38	35	58	3413	3213	2971	3.8	27	25	23	52
1.4	4056	3819	3531	3.5	43	41	38	59	2704	2546	2354	4.3	29	27	25	53
1.6	3316	3122	2887	3.9	46	44	40	60	2210	2081	1924	4.8	31	29	27	54
1.8	2775	2613	2416	4.3	49	46	43	61	1850	1742	1611	5.2	33	31	28	55
2.0	2367	2229	2061	4.6	52	49	45	62	1578	1486	1374	5.6	34	32	30	56
2.2	2050	1930	1785	5.0	54	51	47	63	1367	1287	1190	6.1	36	34	31	56
2.4	1797	1692	1565	5.3	56	53	49	63	1198	1128	1043	6.5	38	35	33	57
2.6	1593	1500	1387	5.6	59	55	51	64	1062	1000	924	6.9	39	37	34	58
2.8	1424	1341	1240	5.9	61	57	53	65	949	894	827	7.3	41	38	35	58
3.0	1283	1208	1117	6.3	63	59	55	65	856	805	745	7.7	42	40	37	59
3.2	1164	1096	1014	6.6	65	61	57	66	776	731	676	8.1	43	41	38	59
3.4	1062	1000	925	6.9	67	63	58	66	708	667	617	8.4	45	42	39	60
3.6	974	917	848	7.2	69	65	60	67	650	612	566	8.8	46	43	40	60
3.8	898	846	782	7.5	71	67	62	67	599	564	521	9.2	47	44	41	61
4.0	831	783	724	7.8	73	68	63	67	554	522	482	9.5	48	46	42	61
4.2	772	727	672	8.1	74	70	65	68	515	485	448	9.9	50	47	43	61
4.4	720	678	627	8.4	76	72	66	68	480	452	418	10.2	51	48	44	62
4.6	673	634	586	8.6	78	73	68	69	449	422	391	10.6	52	49	45	62
4.8	631	594	549	8.9	79	75	69	69	421	396	366	10.9	53	50	46	62
5.0	593	559	517	9.2	81	76	70	69	396	372	344	11.3	54	51	47	63
5.2	559	527	487	9.5	82	78	72	69	373	351	325	11.6	55	52	48	63
5.4	528	497	460	9.8	84	79	73	70	352	332	307	12.0	56	53	49	63
5.6	500	471	435	10.0	86	81	74	70	333	314	290	12.3	57	54	50	64
5.8	474	447	413	10.3	87	82	76	70	316	298	275	12.6	58	55	51	64
6.0	451	424	392	10.6	88	83	77	71	300	283	262	12.9	59	56	51	64
6.2	429	404	373	10.8	90	85	78	71	286	269	249	13.3	60	56	52	64
6.4	409	385	356	11.1	91	86	79	71	272	257	237	13.6	61	57	53	65
6.6	390	367	340	11.4	93	87	81	71	260	245	226	13.9	62	58	54	65
6.8	373	351	325	11.6	94	89	82	72	249	234	216	14.2	63	59	55	65
7.0	357	336	311	11.9	95	90	83	72	238	224	207	14.5	64	60	55	65
7.2	342	322	298	12.1	97	91	84	72	228	215	199	14.8	64	61	56	66
7.4	328	309	286	12.4	98	92	85	72	219	206	191	15.2	65	62	57	66
7.6	315	297	275	12.6	99	94	86	72	210	198	183	15.5	66	62	58	66
7.8	303	285	264	12.9	101	95	88	73	202	190	176	15.8	67	63	58	66
8.0	292	275	254	13.1	102	96	89	73	195	183	169	16.1	68	64	59	66
8.2	281	265	245	13.4	103	97	90	73	187	176	163	16.4	69	65	60	67
8.4	271	255	236	13.6	104	98	91	73	181	170	157	16.7	70	65	61	67
8.6	262	246	228	13.9	106	99	92	73	174	164	152	17.0	70	66	61	67
8.8	253	238	220	14.1	107	100	93	74	168	159	147	17.3	71	67	62	67
9.0	244	230	213	14.3	108	102	94	74	163	153	142	17.6	72	68	63	67
9.2	236	222	206	14.6	109	103	95	74	158	148	137	17.9	73	68	63	67
9.4	229	215	199	14.8	110	104	96	74	152	144	133	18.2	73	69	64	68
9.6	222	209	193	15.1	111	105	97	74	148	139	129	18.5	74	70	65	68
9.8	215	202	187	15.3	113	106	98	74	143	135	125	18.7	75	71	65	68
10.0	208	196	181	15.5	114	107	99	75	139	131	121	19.0	76	71	66	68

10.5 | 194 | 182 | 169 | 16.1 | 116 | 110 | 101 | 75 | 129 | 121 | 112 | 19.7 | 78 | 73 | 68 | 69

Table 92: Stocking levels for Douglas-fir in the PSME/ACGL–PHMA plant association (full stocking = 277).

QMD	UPPER MANAGEMENT ZONE (SDI = 208)								LOWER MANAGEMENT ZONE (SDI = 139)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	180	170	157	16.7	119	112	104	75	120	113	105	20.4	79	75	69	69
11.5	169	159	147	17.3	122	115	106	76	112	106	98	21.1	81	76	71	69
12.0	158	149	138	17.8	124	117	108	76	105	99	92	21.8	83	78	72	70
12.5	149	140	129	18.4	127	119	110	76	99	93	86	22.5	85	80	74	70
13.0	140	132	122	18.9	129	122	113	77	93	88	81	23.2	86	81	75	70
13.5	132	125	115	19.5	132	124	115	77	88	83	77	23.9	88	83	76	70
14.0	125	118	109	20.0	134	126	117	77	84	79	73	24.5	89	84	78	71
14.5	119	112	103	20.6	136	128	119	78	79	75	69	25.2	91	86	79	71
15.0	113	106	98	21.1	139	131	121	78	75	71	66	25.8	92	87	80	71
15.5	107	101	94	21.6	141	133	123	78	72	67	62	26.5	94	88	82	72
16.0	102	96	89	22.2	143	135	125	78	68	64	59	27.1	95	90	83	72
16.5	98	92	85	22.7	145	137	126	79	65	61	57	27.8	97	91	84	72
17.0	93	88	81	23.2	147	139	128	79	62	59	54	28.4	98	93	86	72
17.5	89	84	78	23.7	149	141	130	79	60	56	52	29.0	100	94	87	73
18.0	86	81	75	24.2	152	143	132	79	57	54	50	29.7	101	95	88	73
18.5	82	77	72	24.7	154	145	134	79	55	52	48	30.3	102	96	89	73
19.0	79	74	69	25.2	156	147	135	80	53	50	46	30.9	104	98	90	73
19.5	76	72	66	25.7	158	148	137	80	51	48	44	31.5	105	99	91	73
20.0	73	69	64	26.2	160	150	139	80	49	46	42	32.1	106	100	93	74
20.5	70	66	61	26.7	162	152	141	80	47	44	41	32.7	108	101	94	74
21.0	68	64	59	27.2	163	154	142	80	45	43	39	33.3	109	103	95	74
21.5	66	62	57	27.7	165	156	144	81	44	41	38	33.9	110	104	96	74
22.0	63	60	55	28.2	167	157	146	81	42	40	37	34.5	111	105	97	74
22.5	61	58	53	28.7	169	159	147	81	41	38	36	35.1	113	106	98	75
23.0	59	56	52	29.1	171	161	149	81	39	37	34	35.7	114	107	99	75
23.5	57	54	50	29.6	173	163	150	81	38	36	33	36.3	115	108	100	75
24.0	56	52	48	30.1	175	164	152	82	37	35	32	36.9	116	110	101	75
24.5	54	51	47	30.6	176	166	153	82	36	34	31	37.4	118	111	102	75
25.0	52	49	45	31.0	178	168	155	82	35	33	30	38.0	119	112	103	75
25.5	51	48	44	31.5	180	169	157	82	34	32	29	38.6	120	113	104	75
26.0	49	46	43	32.0	181	171	158	82	33	31	29	39.2	121	114	105	76
26.5	48	45	42	32.4	183	172	159	82	32	30	28	39.7	122	115	106	76
27.0	46	44	40	32.9	185	174	161	82	31	29	27	40.3	123	116	107	76
27.5	45	43	39	33.3	187	176	162	83	30	28	26	40.8	124	117	108	76
28.0	44	41	38	33.8	188	177	164	83	29	28	26	41.4	125	118	109	76
28.5	43	40	37	34.3	190	179	165	83	29	27	25	42.0	127	119	110	76
29.0	42	39	36	34.7	191	180	167	83	28	26	24	42.5	128	120	111	77
30.0	40	37	35	35.6	195	183	169	83	26	25	23	43.6	130	122	113	77

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 93: Stocking levels for ponderosa pine in the PSME/PHMA plant association
(full stocking = 274).

QMD	UPPER MANAGEMENT ZONE (SDI = 167)								LOWER MANAGEMENT ZONE (SDI = 112)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	9780	9096	8515	2.3	53	50	46	45	6553	6094	5705	2.8	36	33	31	38
1.2	7083	6587	6166	2.7	56	52	48	46	4745	4413	4131	3.3	37	35	32	39
1.4	5391	5014	4694	3.1	58	54	50	47	3612	3359	3145	3.7	39	36	34	39
1.6	4257	3959	3706	3.4	59	55	52	47	2852	2652	2483	4.2	40	37	35	40
1.8	3456	3214	3008	3.8	61	57	53	48	2315	2153	2016	4.7	41	38	36	40
2.0	2868	2667	2497	4.2	63	58	54	48	1921	1787	1673	5.1	42	39	36	41
2.2	2423	2253	2109	4.6	64	59	56	48	1623	1509	1413	5.6	43	40	37	41
2.4	2077	1931	1808	4.9	65	61	57	49	1391	1294	1211	6.0	44	41	38	41
2.6	1802	1676	1569	5.3	66	62	58	49	1208	1123	1051	6.5	45	41	39	42
2.8	1581	1470	1376	5.6	68	63	59	49	1059	985	922	6.9	45	42	39	42
3.0	1399	1301	1218	6.0	69	64	60	50	937	872	816	7.3	46	43	40	42
3.2	1248	1161	1087	6.3	70	65	61	50	836	778	728	7.8	47	43	41	43
3.4	1121	1043	976	6.7	71	66	62	50	751	699	654	8.2	47	44	41	43
3.6	1013	942	882	7.0	72	67	62	51	679	631	591	8.6	48	45	42	43
3.8	921	856	802	7.4	73	67	63	51	617	574	537	9.0	49	45	42	43
4.0	841	782	732	7.7	73	68	64	51	563	524	490	9.4	49	46	43	44
4.2	771	717	671	8.1	74	69	65	51	517	481	450	9.9	50	46	43	44
4.4	710	661	618	8.4	75	70	65	51	476	443	414	10.3	50	47	44	44
4.6	657	611	572	8.8	76	70	66	52	440	409	383	10.7	51	47	44	44
4.8	609	566	530	9.1	77	71	67	52	408	379	355	11.1	51	48	45	44
5.0	566	527	493	9.4	77	72	67	52	380	353	330	11.5	52	48	45	45
5.2	528	491	460	9.8	78	72	68	52	354	329	308	11.9	52	49	45	45
5.4	494	460	430	10.1	79	73	68	52	331	308	288	12.3	53	49	46	45
5.6	464	431	404	10.4	79	74	69	52	311	289	270	12.7	53	49	46	45
5.8	436	405	379	10.7	80	74	70	53	292	271	254	13.1	54	50	47	45
6.0	410	382	357	11.1	81	75	70	53	275	256	239	13.5	54	50	47	45
6.2	387	360	337	11.4	81	75	71	53	259	241	226	13.9	54	51	47	45
6.4	366	340	319	11.7	82	76	71	53	245	228	213	14.3	55	51	48	46
6.6	347	322	302	12.0	82	77	72	53	232	216	202	14.7	55	51	48	46
6.8	329	306	286	12.4	83	77	72	53	220	205	192	15.1	56	52	48	46
7.0	312	290	272	12.7	83	78	73	53	209	195	182	15.5	56	52	49	46
7.2	297	276	259	13.0	84	78	73	54	199	185	173	15.9	56	52	49	46
7.4	283	263	246	13.3	85	79	74	54	190	176	165	16.3	57	53	49	46
7.6	270	251	235	13.6	85	79	74	54	181	168	157	16.7	57	53	50	46
7.8	258	240	224	14.0	86	80	74	54	173	161	150	17.1	57	53	50	46
8.0	247	229	215	14.3	86	80	75	54	165	154	144	17.5	58	54	50	47
8.2	236	219	205	14.6	87	80	75	54	158	147	138	17.8	58	54	50	47
8.4	226	210	197	14.9	87	81	76	54	152	141	132	18.2	58	54	51	47
8.6	217	202	189	15.2	88	81	76	54	145	135	127	18.6	59	55	51	47
8.8	208	194	181	15.5	88	82	77	54	140	130	121	19.0	59	55	51	47
9.0	200	186	174	15.9	88	82	77	54	134	125	117	19.4	59	55	52	47
9.2	193	179	168	16.2	89	83	77	55	129	120	112	19.7	60	55	52	47
9.4	185	172	161	16.5	89	83	78	55	124	115	108	20.1	60	56	52	47
9.6	179	166	155	16.8	90	83	78	55	120	111	104	20.5	60	56	52	47
9.8	172	160	150	17.1	90	84	79	55	115	107	100	20.9	60	56	53	47
10.0	166	154	145	17.4	91	84	79	55	111	103	97	21.3	61	56	53	48

10.5 | 152 | 142 | 133 | 18.2 | 92 | 85 | 80 | 55 | 102 | 95 | 89 | 22.2 | 61 | 57 | 53 | 48

Table 93: Stocking levels for ponderosa pine in the PSME/PHMA plant association
(full stocking = 274).

QMD	UPPER MANAGEMENT ZONE (SDI = 167)								LOWER MANAGEMENT ZONE (SDI = 112)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	140	130	122	18.9	93	86	81	55	94	87	82	23.1	62	58	54	48
11.5	130	121	113	19.7	94	87	81	56	87	81	76	24.1	63	58	55	48
12.0	120	112	105	20.4	94	88	82	56	81	75	70	25.0	63	59	55	48
12.5	112	104	97	21.2	95	89	83	56	75	70	65	25.9	64	59	56	48
13.0	104	97	91	22.0	96	89	84	56	70	65	61	26.8	64	60	56	49
13.5	98	91	85	22.7	97	90	85	56	65	61	57	27.7	65	60	57	49
14.0	92	85	80	23.4	98	91	85	56	61	57	53	28.6	66	61	57	49
14.5	86	80	75	24.2	99	92	86	56	58	54	50	29.5	66	61	58	49
15.0	81	75	71	24.9	99	92	87	57	54	50	47	30.4	67	62	58	49
15.5	76	71	67	25.6	100	93	87	57	51	48	45	31.3	67	62	58	49
16.0	72	67	63	26.4	101	94	88	57	48	45	42	32.2	68	63	59	49
16.5	68	64	60	27.1	102	95	88	57	46	43	40	33.1	68	63	59	50
17.0	65	60	57	27.8	102	95	89	57	44	40	38	34.0	69	64	60	50
17.5	62	57	54	28.6	103	96	90	57	41	38	36	34.9	69	64	60	50
18.0	59	55	51	29.3	104	96	90	57	39	37	34	35.8	69	65	60	50
18.5	56	52	49	30.0	104	97	91	58	37	35	33	36.6	70	65	61	50
19.0	53	50	46	30.7	105	98	91	58	36	33	31	37.5	70	65	61	50
19.5	51	47	44	31.4	106	98	92	58	34	32	30	38.4	71	66	62	50
20.0	49	45	42	32.1	106	99	92	58	33	30	28	39.3	71	66	62	50
20.5	47	43	41	32.8	107	99	93	58	31	29	27	40.1	72	67	62	51
21.0	45	42	39	33.6	107	100	94	58	30	28	26	41.0	72	67	63	51
21.5	43	40	37	34.3	108	100	94	58	29	27	25	41.9	72	67	63	51
22.0	41	38	36	35.0	109	101	95	58	28	26	24	42.7	73	68	63	51
22.5	40	37	34	35.7	109	102	95	58	26	25	23	43.6	73	68	64	51
23.0	38	35	33	36.4	110	102	96	58	25	24	22	44.4	74	68	64	51
23.5	37	34	32	37.1	110	103	96	59	25	23	21	45.3	74	69	64	51
24.0	35	33	31	37.8	111	103	96	59	24	22	21	46.1	74	69	65	51
24.5	34	32	30	38.5	111	104	97	59	23	21	20	47.0	75	69	65	51
25.0	33	31	29	39.2	112	104	97	59	22	20	19	47.8	75	70	65	51
25.5	32	29	28	39.8	112	104	98	59	21	20	18	48.7	75	70	66	51
26.0	31	28	27	40.5	113	105	98	59	21	19	18	49.5	76	70	66	52
26.5	30	28	26	41.2	113	105	99	59	20	18	17	50.4	76	71	66	52
27.0	29	27	25	41.9	114	106	99	59	19	18	17	51.2	76	71	66	52
27.5	28	26	24	42.6	114	106	100	59	19	17	16	52.0	77	71	67	52
28.0	27	25	23	43.3	115	107	100	59	18	17	16	52.9	77	72	67	52
28.5	26	24	23	44.0	115	107	100	59	17	16	15	53.7	77	72	67	52
29.0	25	23	22	44.7	116	108	101	59	17	16	15	54.5	78	72	68	52
30.0	24	22	21	46.0	117	108	102	60	16	15	14	56.2	78	73	68	52

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 94: Stocking levels for Douglas-fir in the PSME/PHMA plant association (full stocking = 225).

QMD	UPPER MANAGEMENT ZONE (SDI = 169)								LOWER MANAGEMENT ZONE (SDI = 113)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	5477	5156	4768	3.0	30	28	26	53	3651	3437	3179	3.7	20	19	17	47
1.2	4159	3915	3620	3.5	33	31	28	55	2772	2610	2414	4.3	22	21	19	48
1.4	3295	3102	2869	3.9	35	33	31	56	2197	2068	1912	4.8	23	22	20	50
1.6	2693	2536	2345	4.3	38	35	33	57	1796	1691	1563	5.3	25	24	22	51
1.8	2254	2123	1963	4.7	40	38	35	58	1503	1415	1309	5.8	27	25	23	52
2.0	1923	1810	1674	5.1	42	39	37	59	1282	1207	1116	6.3	28	26	24	52
2.2	1665	1568	1450	5.5	44	41	38	59	1110	1045	966	6.7	29	28	26	53
2.4	1460	1375	1271	5.9	46	43	40	60	973	916	847	7.2	31	29	27	54
2.6	1294	1218	1126	6.2	48	45	42	61	863	812	751	7.6	32	30	28	54
2.8	1157	1089	1007	6.6	49	47	43	61	771	726	671	8.1	33	31	29	55
3.0	1042	981	908	6.9	51	48	45	62	695	654	605	8.5	34	32	30	55
3.2	946	890	823	7.3	53	50	46	62	630	594	549	8.9	35	33	31	56
3.4	863	812	751	7.6	54	51	47	63	575	542	501	9.4	36	34	32	56
3.6	792	745	689	8.0	56	53	49	63	528	497	459	9.8	37	35	32	57
3.8	730	687	635	8.3	57	54	50	64	486	458	423	10.2	38	36	33	57
4.0	675	636	588	8.6	59	55	51	64	450	424	392	10.6	39	37	34	58
4.2	627	591	546	9.0	60	57	53	65	418	394	364	11.0	40	38	35	58
4.4	585	550	509	9.3	62	58	54	65	390	367	339	11.4	41	39	36	58
4.6	547	515	476	9.6	63	59	55	65	364	343	317	11.7	42	40	37	59
4.8	513	483	446	9.9	64	61	56	66	342	322	298	12.1	43	40	37	59
5.0	482	454	420	10.2	66	62	57	66	321	303	280	12.5	44	41	38	59
5.2	454	428	396	10.5	67	63	58	66	303	285	264	12.9	45	42	39	60
5.4	429	404	374	10.8	68	64	59	66	286	269	249	13.3	46	43	40	60
5.6	406	382	354	11.1	69	65	60	67	271	255	236	13.6	46	44	40	60
5.8	385	363	335	11.4	71	67	62	67	257	242	224	14.0	47	44	41	61
6.0	366	345	319	11.7	72	68	63	67	244	230	212	14.4	48	45	42	61
6.2	348	328	303	12.0	73	69	64	68	232	219	202	14.7	49	46	42	61
6.4	332	313	289	12.3	74	70	65	68	221	208	193	15.1	49	47	43	61
6.6	317	298	276	12.6	75	71	66	68	211	199	184	15.4	50	47	44	62
6.8	303	285	264	12.9	76	72	67	68	202	190	176	15.8	51	48	44	62
7.0	290	273	252	13.2	78	73	67	69	193	182	168	16.1	52	49	45	62
7.2	278	262	242	13.5	79	74	68	69	185	174	161	16.5	52	49	46	62
7.4	267	251	232	13.7	80	75	69	69	178	167	155	16.8	53	50	46	62
7.6	256	241	223	14.0	81	76	70	69	171	161	149	17.2	54	51	47	63
7.8	246	232	214	14.3	82	77	71	69	164	155	143	17.5	54	51	47	63
8.0	237	223	206	14.6	83	78	72	70	158	149	138	17.8	55	52	48	63
8.2	228	215	199	14.8	84	79	73	70	152	143	133	18.2	56	53	49	63
8.4	220	207	192	15.1	85	80	74	70	147	138	128	18.5	56	53	49	63
8.6	213	200	185	15.4	86	81	75	70	142	133	123	18.8	57	54	50	64
8.8	205	193	179	15.7	87	82	75	70	137	129	119	19.2	58	54	50	64
9.0	198	187	173	15.9	88	83	76	70	132	125	115	19.5	58	55	51	64
9.2	192	181	167	16.2	89	83	77	71	128	120	111	19.8	59	56	51	64
9.4	186	175	162	16.5	90	84	78	71	124	117	108	20.2	60	56	52	64
9.6	180	169	157	16.7	90	85	79	71	120	113	104	20.5	60	57	53	65
9.8	174	164	152	17.0	91	86	80	71	116	110	101	20.8	61	57	53	65
10.0	169	159	147	17.2	92	87	80	71	113	106	98	21.1	62	58	54	65
10.5	157	148	137	17.9	95	89	82	72	105	99	91	21.9	63	59	55	65

Table 94: Stocking levels for Douglas-fir in the PSME/PHMA plant association (full stocking = 225).

QMD	UPPER MANAGEMENT ZONE (SDI = 169)								LOWER MANAGEMENT ZONE (SDI = 113)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	147	138	128	18.5	97	91	84	72	98	92	85	22.7	64	61	56	66
11.5	137	129	119	19.2	99	93	86	72	91	86	80	23.5	66	62	57	66
12.0	129	121	112	19.8	101	95	88	73	86	81	75	24.2	67	63	59	66
12.5	121	114	105	20.4	103	97	90	73	81	76	70	25.0	69	65	60	67
13.0	114	107	99	21.0	105	99	91	73	76	71	66	25.7	70	66	61	67
13.5	108	101	94	21.6	107	101	93	74	72	68	62	26.5	71	67	62	67
14.0	102	96	89	22.2	109	102	95	74	68	64	59	27.2	73	68	63	67
14.5	97	91	84	22.8	111	104	96	74	64	61	56	28.0	74	70	64	68
15.0	92	86	80	23.4	113	106	98	74	61	58	53	28.7	75	71	65	68
15.5	87	82	76	24.0	114	108	100	75	58	55	51	29.4	76	72	66	68
16.0	83	78	72	24.6	116	109	101	75	55	52	48	30.1	77	73	67	68
16.5	79	75	69	25.2	118	111	103	75	53	50	46	30.8	79	74	68	69
17.0	76	72	66	25.7	120	113	104	75	51	48	44	31.5	80	75	69	69
17.5	73	68	63	26.3	121	114	106	76	48	46	42	32.2	81	76	70	69
18.0	70	66	61	26.9	123	116	107	76	46	44	40	32.9	82	77	71	69
18.5	67	63	58	27.4	125	117	109	76	45	42	39	33.6	83	78	72	70
19.0	64	60	56	28.0	126	119	110	76	43	40	37	34.3	84	79	73	70
19.5	62	58	54	28.5	128	121	111	77	41	39	36	35.0	85	80	74	70
20.0	59	56	52	29.1	130	122	113	77	40	37	34	35.6	86	81	75	70
20.5	57	54	50	29.6	131	124	114	77	38	36	33	36.3	87	82	76	70
21.0	55	52	48	30.2	133	125	116	77	37	35	32	37.0	89	83	77	71
21.5	53	50	46	30.7	134	126	117	77	36	33	31	37.6	90	84	78	71
22.0	51	48	45	31.3	136	128	118	78	34	32	30	38.3	91	85	79	71
22.5	50	47	43	31.8	137	129	120	78	33	31	29	38.9	92	86	80	71
23.0	48	45	42	32.3	139	131	121	78	32	30	28	39.6	93	87	81	71
23.5	47	44	41	32.9	140	132	122	78	31	29	27	40.2	94	88	81	72
24.0	45	42	39	33.4	142	133	123	78	30	28	26	40.9	95	89	82	72
24.5	44	41	38	33.9	143	135	125	78	29	27	25	41.5	95	90	83	72
25.0	42	40	37	34.4	145	136	126	79	28	27	25	42.2	96	91	84	72
25.5	41	39	36	35.0	146	137	127	79	27	26	24	42.8	97	92	85	72
26.0	40	38	35	35.5	147	139	128	79	27	25	23	43.4	98	93	86	72
26.5	39	37	34	36.0	149	140	130	79	26	24	23	44.1	99	93	86	72
27.0	38	36	33	36.5	150	141	131	79	25	24	22	44.7	100	94	87	73
27.5	37	35	32	37.0	152	143	132	79	24	23	21	45.3	101	95	88	73
28.0	36	34	31	37.5	153	144	133	79	24	22	21	45.9	102	96	89	73
28.5	35	33	30	38.0	154	145	134	80	23	22	20	46.6	103	97	90	73
29.0	34	32	30	38.5	156	146	135	80	23	21	20	47.2	104	98	90	73
30.0	32	30	28	39.5	158	149	138	80	21	20	19	48.4	105	99	92	73

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 95: Stocking levels for western larch in the PSME/PHMA plant association (full stocking = 256).

QMD	UPPER MANAGEMENT ZONE (SDI = 192)								LOWER MANAGEMENT ZONE (SDI = 128)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	10315	9712	8980	2.2	56	53	49	53	6877	6474	5987	2.7	38	35	33	46
1.2	7525	7084	6551	2.6	59	56	51	54	5016	4723	4367	3.2	39	37	34	47
1.4	5763	5426	5017	3.0	62	58	54	55	3842	3617	3345	3.6	41	39	36	48
1.6	4574	4307	3983	3.3	64	60	56	55	3050	2871	2655	4.1	43	40	37	48
1.8	3731	3513	3248	3.7	66	62	57	56	2487	2342	2166	4.5	44	41	38	49
2.0	3109	2928	2707	4.0	68	64	59	57	2073	1952	1805	4.9	45	43	39	49
2.2	2637	2483	2296	4.4	70	66	61	57	1758	1655	1530	5.3	46	44	40	50
2.4	2268	2136	1975	4.7	71	67	62	57	1512	1424	1317	5.8	48	45	41	50
2.6	1975	1859	1719	5.0	73	69	63	58	1317	1240	1146	6.2	49	46	42	51
2.8	1737	1636	1513	5.4	74	70	65	58	1158	1090	1008	6.6	50	47	43	51
3.0	1542	1452	1342	5.7	76	71	66	58	1028	968	895	7.0	50	48	44	51
3.2	1379	1298	1201	6.0	77	73	67	59	919	866	800	7.4	51	48	45	52
3.4	1242	1169	1081	6.4	78	74	68	59	828	779	721	7.8	52	49	45	52
3.6	1125	1059	979	6.7	80	75	69	59	750	706	653	8.2	53	50	46	52
3.8	1024	964	892	7.0	81	76	70	60	683	643	595	8.6	54	51	47	52
4.0	937	883	816	7.3	82	77	71	60	625	588	544	9.0	55	51	47	53
4.2	861	811	750	7.6	83	78	72	60	574	541	500	9.4	55	52	48	53
4.4	795	748	692	8.0	84	79	73	60	530	499	461	9.7	56	53	49	53
4.6	736	693	641	8.3	85	80	74	61	491	462	427	10.1	57	53	49	53
4.8	684	644	595	8.6	86	81	75	61	456	429	397	10.5	57	54	50	54
5.0	637	600	555	8.9	87	82	76	61	425	400	370	10.9	58	55	50	54
5.2	595	561	518	9.2	88	83	76	61	397	374	346	11.3	59	55	51	54
5.4	558	525	486	9.5	89	84	77	61	372	350	324	11.6	59	56	51	54
5.6	524	493	456	9.8	90	84	78	62	349	329	304	12.0	60	56	52	54
5.8	493	464	429	10.1	90	85	79	62	329	309	286	12.4	60	57	52	54
6.0	465	438	405	10.4	91	86	79	62	310	292	270	12.7	61	57	53	55
6.2	439	413	382	10.7	92	87	80	62	293	276	255	13.1	61	58	53	55
6.4	416	391	362	11.0	93	87	81	62	277	261	241	13.5	62	58	54	55
6.6	394	371	343	11.3	94	88	82	62	263	247	229	13.8	62	59	54	55
6.8	374	352	326	11.6	94	89	82	62	250	235	217	14.2	63	59	55	55
7.0	356	335	310	11.9	95	90	83	63	237	223	207	14.6	63	60	55	55
7.2	339	319	295	12.2	96	90	83	63	226	213	197	14.9	64	60	56	55
7.4	323	304	282	12.5	97	91	84	63	216	203	188	15.3	64	61	56	56
7.6	309	291	269	12.8	97	92	85	63	206	194	179	15.6	65	61	56	56
7.8	295	278	257	13.1	98	92	85	63	197	185	171	16.0	65	61	57	56
8.0	283	266	246	13.3	99	93	86	63	188	177	164	16.3	66	62	57	56
8.2	271	255	236	13.6	99	93	86	63	181	170	157	16.7	66	62	58	56
8.4	260	245	226	13.9	100	94	87	63	173	163	151	17.0	67	63	58	56
8.6	249	235	217	14.2	101	95	88	64	166	157	145	17.4	67	63	58	56
8.8	240	226	209	14.5	101	95	88	64	160	150	139	17.7	67	64	59	56
9.0	230	217	201	14.8	102	96	89	64	154	145	134	18.1	68	64	59	57
9.2	222	209	193	15.1	102	96	89	64	148	139	129	18.4	68	64	59	57
9.4	214	201	186	15.3	103	97	90	64	143	134	124	18.8	69	65	60	57
9.6	206	194	179	15.6	104	98	90	64	137	129	120	19.1	69	65	60	57
9.8	199	187	173	15.9	104	98	91	64	133	125	115	19.5	69	65	60	57
10.0	192	181	167	16.2	105	99	91	64	128	121	111	19.8	70	66	61	57
10.5	177	166	154	16.9	106	100	92	65	118	111	102	20.7	71	67	62	57

Table 95: Stocking levels for western larch in the PSME/PHMA plant association (full stocking = 256).

QMD	UPPER MANAGEMENT ZONE (SDI = 192)								LOWER MANAGEMENT ZONE (SDI = 128)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	163	153	142	17.6	107	101	94	65	109	102	95	21.5	72	67	62	58
11.5	151	142	131	18.3	109	102	95	65	101	95	88	22.4	73	68	63	58
12.0	140	132	122	18.9	110	104	96	65	93	88	81	23.2	73	69	64	58
12.5	131	123	114	19.6	111	105	97	65	87	82	76	24.0	74	70	65	58
13.0	122	115	106	20.3	112	106	98	66	81	77	71	24.9	75	71	65	58
13.5	114	108	99	21.0	114	107	99	66	76	72	66	25.7	76	71	66	59
14.0	107	101	93	21.6	115	108	100	66	72	67	62	26.5	76	72	67	59
14.5	101	95	88	22.3	116	109	101	66	67	63	59	27.3	77	73	67	59
15.0	95	90	83	23.0	117	110	102	66	63	60	55	28.1	78	73	68	59
15.5	90	85	78	23.6	118	111	103	66	60	56	52	29.0	79	74	68	59
16.0	85	80	74	24.3	119	112	104	67	57	53	49	29.8	79	75	69	59
16.5	81	76	70	25.0	120	113	104	67	54	51	47	30.6	80	75	70	59
17.0	77	72	67	25.6	121	114	105	67	51	48	45	31.4	81	76	70	60
17.5	73	69	64	26.3	122	115	106	67	49	46	42	32.2	81	76	71	60
18.0	69	65	60	26.9	123	116	107	67	46	44	40	33.0	82	77	71	60
18.5	66	62	58	27.6	124	116	108	67	44	42	38	33.7	82	78	72	60
19.0	63	60	55	28.2	125	117	108	67	42	40	37	34.5	83	78	72	60
19.5	60	57	53	28.8	125	118	109	68	40	38	35	35.3	84	79	73	60
20.0	58	55	50	29.5	126	119	110	68	39	36	34	36.1	84	79	73	60
20.5	55	52	48	30.1	127	120	111	68	37	35	32	36.9	85	80	74	61
21.0	53	50	46	30.7	128	121	111	68	35	33	31	37.7	85	80	74	61
21.5	51	48	44	31.4	129	121	112	68	34	32	30	38.4	86	81	75	61
22.0	49	46	43	32.0	130	122	113	68	33	31	28	39.2	86	81	75	61
22.5	47	44	41	32.6	130	123	114	68	31	30	27	40.0	87	82	76	61
23.0	45	43	40	33.3	131	124	114	68	30	29	26	40.7	87	82	76	61
23.5	44	41	38	33.9	132	124	115	68	29	27	25	41.5	88	83	77	61
24.0	42	40	37	34.5	133	125	116	69	28	27	25	42.3	88	83	77	61
24.5	41	38	35	35.1	133	126	116	69	27	26	24	43.0	89	84	77	61
25.0	39	37	34	35.7	134	126	117	69	26	25	23	43.8	89	84	78	61
25.5	38	36	33	36.4	135	127	117	69	25	24	22	44.5	90	85	78	62
26.0	37	35	32	37.0	136	128	118	69	25	23	21	45.3	90	85	79	62
26.5	36	34	31	37.6	136	128	119	69	24	22	21	46.0	91	86	79	62
27.0	34	32	30	38.2	137	129	119	69	23	22	20	46.8	91	86	80	62
27.5	33	31	29	38.8	138	130	120	69	22	21	19	47.5	92	86	80	62
28.0	32	30	28	39.4	138	130	120	69	22	20	19	48.3	92	87	80	62
28.5	31	30	27	40.0	139	131	121	69	21	20	18	49.0	93	87	81	62
29.0	30	29	27	40.6	140	131	122	70	20	19	18	49.8	93	88	81	62
30.0	29	27	25	41.9	141	133	123	70	19	18	17	51.3	94	88	82	62

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the "CL" equation from Dealy (1985) and the basal area per acre for an even-aged structure (EA columns).

Table 96: Stocking levels for ponderosa pine in the PSME/HODI plant association
(full stocking = 340).

QMD	UPPER MANAGEMENT ZONE (SDI = 252)								LOWER MANAGEMENT ZONE (SDI = 169)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	14758	13725	12849	1.8	80	75	70	53	9888	9196	8609	2.3	54	50	47	45
1.2	10688	9940	9305	2.2	84	78	73	53	7161	6659	6234	2.7	56	52	49	46
1.4	8136	7566	7083	2.5	87	81	76	54	5451	5069	4745	3.0	58	54	51	47
1.6	6423	5973	5592	2.8	90	83	78	55	4303	4002	3747	3.4	60	56	52	47
1.8	5214	4849	4540	3.1	92	86	80	55	3494	3249	3042	3.8	62	57	54	48
2.0	4327	4024	3767	3.4	94	88	82	56	2899	2696	2524	4.2	63	59	55	48
2.2	3655	3400	3182	3.7	96	90	84	56	2449	2278	2132	4.5	65	60	56	49
2.4	3134	2914	2728	4.0	98	92	86	56	2100	1953	1828	4.9	66	61	57	49
2.6	2720	2529	2368	4.3	100	93	87	57	1822	1695	1586	5.3	67	62	58	49
2.8	2385	2218	2077	4.6	102	95	89	57	1598	1486	1391	5.6	68	64	59	50
3.0	2111	1963	1838	4.9	104	96	90	57	1415	1315	1231	6.0	69	65	60	50
3.2	1883	1751	1640	5.2	105	98	92	58	1262	1173	1099	6.3	70	66	61	50
3.4	1692	1573	1473	5.5	107	99	93	58	1133	1054	987	6.7	71	66	62	51
3.6	1529	1422	1331	5.7	108	101	94	58	1024	953	892	7.0	72	67	63	51
3.8	1389	1292	1210	6.0	109	102	95	58	931	866	810	7.4	73	68	64	51
4.0	1269	1180	1105	6.3	111	103	96	59	850	791	740	7.7	74	69	65	51
4.2	1164	1082	1013	6.6	112	104	97	59	780	725	679	8.0	75	70	65	51
4.4	1072	997	933	6.9	113	105	99	59	718	668	625	8.4	76	71	66	52
4.6	991	921	863	7.1	114	106	100	59	664	617	578	8.7	77	71	67	52
4.8	919	855	800	7.4	115	107	101	59	616	573	536	9.0	77	72	67	52
5.0	855	795	744	7.7	117	108	101	60	573	533	499	9.4	78	73	68	52
5.2	797	742	694	7.9	118	109	102	60	534	497	465	9.7	79	73	69	52
5.4	746	694	649	8.2	119	110	103	60	500	465	435	10.0	79	74	69	52
5.6	699	650	609	8.5	120	111	104	60	469	436	408	10.4	80	75	70	53
5.8	657	611	572	8.7	121	112	105	60	440	410	383	10.7	81	75	70	53
6.0	619	576	539	9.0	122	113	106	60	415	386	361	11.0	81	76	71	53
6.2	584	543	509	9.3	122	114	107	61	391	364	341	11.3	82	76	71	53
6.4	552	514	481	9.5	123	115	107	61	370	344	322	11.7	83	77	72	53
6.6	523	486	455	9.8	124	116	108	61	350	326	305	12.0	83	77	72	53
6.8	496	461	432	10.1	125	116	109	61	332	309	289	12.3	84	78	73	53
7.0	471	438	410	10.3	126	117	110	61	316	294	275	12.6	84	78	73	54
7.2	448	417	390	10.6	127	118	110	61	300	279	261	12.9	85	79	74	54
7.4	427	397	372	10.9	128	119	111	61	286	266	249	13.3	85	79	74	54
7.6	407	379	355	11.1	128	119	112	61	273	254	238	13.6	86	80	75	54
7.8	389	362	339	11.4	129	120	112	61	261	242	227	13.9	87	80	75	54
8.0	372	346	324	11.6	130	121	113	62	249	232	217	14.2	87	81	76	54
8.2	356	331	310	11.9	131	121	114	62	239	222	208	14.5	88	81	76	54
8.4	341	317	297	12.1	131	122	114	62	229	213	199	14.8	88	82	77	54
8.6	327	304	285	12.4	132	123	115	62	219	204	191	15.1	88	82	77	54
8.8	314	292	274	12.7	133	123	116	62	211	196	183	15.5	89	83	77	55
9.0	302	281	263	12.9	133	124	116	62	202	188	176	15.8	89	83	78	55
9.2	290	270	253	13.2	134	125	117	62	195	181	169	16.1	90	84	78	55
9.4	280	260	243	13.4	135	125	117	62	187	174	163	16.4	90	84	79	55
9.6	269	251	235	13.7	135	126	118	62	181	168	157	16.7	91	84	79	55
9.8	260	242	226	13.9	136	127	118	62	174	162	152	17.0	91	85	79	55
10.0	251	233	218	14.2	137	127	119	63	168	156	146	17.3	92	85	80	55

10.5 | 230 | 214 | 200 | 14.8 | 138 | 129 | 120 | 63 | 154 | 143 | 134 | 18.1 | 93 | 86 | 81 | 55

Table 96: Stocking levels for ponderosa pine in the PSME/HODI plant association
(full stocking = 340).

QMD	UPPER MANAGEMENT ZONE (SDI = 252)								LOWER MANAGEMENT ZONE (SDI = 169)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	212	197	184	15.4	140	130	122	63	142	132	123	18.8	94	87	82	56
11.5	196	182	170	16.0	141	131	123	63	131	122	114	19.6	95	88	82	56
12.0	182	169	158	16.6	143	133	124	63	122	113	106	20.3	96	89	83	56
12.5	169	157	147	17.3	144	134	125	64	113	105	98	21.1	96	90	84	56
13.0	158	146	137	17.9	145	135	126	64	106	98	92	21.8	97	90	85	56
13.5	147	137	128	18.5	146	136	128	64	99	92	86	22.6	98	91	85	56
14.0	138	128	120	19.1	148	137	129	64	93	86	81	23.3	99	92	86	57
14.5	130	121	113	19.7	149	138	130	64	87	81	76	24.0	100	93	87	57
15.0	122	114	106	20.3	150	140	131	64	82	76	71	24.8	101	94	88	57
15.5	115	107	100	20.9	151	141	132	64	77	72	67	25.5	101	94	88	57
16.0	109	101	95	21.5	152	142	133	65	73	68	64	26.2	102	95	89	57
16.5	103	96	90	22.1	153	143	134	65	69	64	60	27.0	103	96	89	57
17.0	98	91	85	22.7	154	144	134	65	66	61	57	27.7	103	96	90	57
17.5	93	87	81	23.2	155	145	135	65	62	58	54	28.4	104	97	91	57
18.0	89	82	77	23.8	156	146	136	65	59	55	52	29.1	105	98	91	58
18.5	84	78	73	24.4	157	146	137	65	57	53	49	29.8	106	98	92	58
19.0	80	75	70	25.0	158	147	138	65	54	50	47	30.5	106	99	92	58
19.5	77	71	67	25.6	159	148	139	65	51	48	45	31.3	107	99	93	58
20.0	73	68	64	26.2	160	149	140	66	49	46	43	32.0	107	100	94	58
20.5	70	65	61	26.7	161	150	140	66	47	44	41	32.7	108	100	94	58
21.0	67	63	59	27.3	162	151	141	66	45	42	39	33.4	109	101	95	58
21.5	65	60	56	27.9	163	152	142	66	43	40	38	34.1	109	102	95	58
22.0	62	58	54	28.5	164	152	143	66	42	39	36	34.8	110	102	96	58
22.5	60	55	52	29.0	165	153	143	66	40	37	35	35.5	110	103	96	59
23.0	57	53	50	29.6	166	154	144	66	38	36	33	36.2	111	103	97	59
23.5	55	51	48	30.2	166	155	145	66	37	34	32	36.9	111	104	97	59
24.0	53	49	46	30.7	167	155	146	66	36	33	31	37.6	112	104	98	59
24.5	51	48	45	31.3	168	156	146	66	34	32	30	38.3	113	105	98	59
25.0	50	46	43	31.9	169	157	147	66	33	31	29	38.9	113	105	98	59
25.5	48	44	42	32.4	170	158	148	67	32	30	28	39.6	114	106	99	59
26.0	46	43	40	33.0	170	158	148	67	31	29	27	40.3	114	106	99	59
26.5	45	42	39	33.6	171	159	149	67	30	28	26	41.0	115	107	100	59
27.0	43	40	38	34.1	172	160	150	67	29	27	25	41.7	115	107	100	59
27.5	42	39	36	34.7	173	160	150	67	28	26	24	42.4	116	107	101	59
28.0	41	38	35	35.2	173	161	151	67	27	25	24	43.0	116	108	101	60
28.5	39	37	34	35.8	174	162	151	67	26	24	23	43.7	117	108	101	60
29.0	38	35	33	36.3	175	162	152	67	26	24	22	44.4	117	109	102	60
30.0	36	33	31	37.5	176	164	153	67	24	22	21	45.8	118	110	103	60

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 97: Stocking levels for Douglas-fir in the PSME/HODI plant association (full stocking = 255).

QMD	UPPER MANAGEMENT ZONE (SDI = 191)								LOWER MANAGEMENT ZONE (SDI = 128)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	6207	5844	5404	2.8	34	32	29	55	4138	3896	3603	3.5	23	21	20	49
1.2	4713	4438	4104	3.3	37	35	32	57	3142	2958	2736	4.0	25	23	21	50
1.4	3735	3516	3251	3.7	40	38	35	58	2490	2344	2168	4.5	27	25	23	52
1.6	3053	2874	2658	4.1	43	40	37	59	2035	1916	1772	5.0	28	27	25	53
1.8	2555	2406	2225	4.4	45	43	39	60	1704	1604	1483	5.4	30	28	26	54
2.0	2179	2052	1897	4.8	48	45	41	61	1453	1368	1265	5.9	32	30	28	54
2.2	1887	1777	1643	5.2	50	47	43	61	1258	1185	1095	6.3	33	31	29	55
2.4	1655	1558	1441	5.5	52	49	45	62	1103	1039	961	6.8	35	33	30	56
2.6	1467	1381	1277	5.9	54	51	47	63	978	920	851	7.2	36	34	31	56
2.8	1311	1235	1142	6.2	56	53	49	63	874	823	761	7.6	37	35	33	57
3.0	1182	1112	1029	6.5	58	55	50	64	788	742	686	8.0	39	36	34	57
3.2	1072	1009	933	6.9	60	56	52	64	715	673	622	8.4	40	38	35	58
3.4	978	921	852	7.2	62	58	54	65	652	614	568	8.8	41	39	36	58
3.6	897	845	781	7.5	63	60	55	65	598	563	521	9.2	42	40	37	59
3.8	827	778	720	7.8	65	61	57	66	551	519	480	9.6	43	41	38	59
4.0	765	720	666	8.1	67	63	58	66	510	480	444	9.9	45	42	39	60
4.2	711	669	619	8.4	68	64	60	67	474	446	413	10.3	46	43	40	60
4.4	663	624	577	8.7	70	66	61	67	442	416	385	10.7	47	44	41	60
4.6	620	583	539	9.0	72	67	62	67	413	389	360	11.0	48	45	42	61
4.8	581	547	506	9.3	73	69	64	68	387	365	337	11.4	49	46	42	61
5.0	546	514	476	9.6	74	70	65	68	364	343	317	11.8	50	47	43	61
5.2	515	485	448	9.9	76	71	66	68	343	323	299	12.1	51	48	44	62
5.4	486	458	423	10.2	77	73	67	68	324	305	282	12.5	52	49	45	62
5.6	460	433	401	10.5	79	74	69	69	307	289	267	12.8	52	49	46	62
5.8	437	411	380	10.7	80	75	70	69	291	274	253	13.1	53	50	46	63
6.0	415	391	361	11.0	81	77	71	69	277	260	241	13.5	54	51	47	63
6.2	395	372	344	11.3	83	78	72	70	263	248	229	13.8	55	52	48	63
6.4	376	354	328	11.6	84	79	73	70	251	236	218	14.2	56	53	49	63
6.6	359	338	313	11.8	85	80	74	70	239	225	209	14.5	57	54	50	64
6.8	343	323	299	12.1	87	82	75	70	229	216	199	14.8	58	54	50	64
7.0	329	309	286	12.4	88	83	76	71	219	206	191	15.2	59	55	51	64
7.2	315	297	274	12.6	89	84	78	71	210	198	183	15.5	59	56	52	64
7.4	302	285	263	12.9	90	85	79	71	201	190	175	15.8	60	57	52	64
7.6	290	273	253	13.2	91	86	80	71	194	182	169	16.1	61	57	53	65
7.8	279	263	243	13.4	93	87	81	71	186	175	162	16.4	62	58	54	65
8.0	269	253	234	13.7	94	88	82	72	179	169	156	16.8	63	59	54	65
8.2	259	244	225	13.9	95	89	83	72	173	162	150	17.1	63	60	55	65
8.4	250	235	217	14.2	96	90	84	72	166	157	145	17.4	64	60	56	65
8.6	241	227	210	14.5	97	91	85	72	161	151	140	17.7	65	61	56	66
8.8	233	219	203	14.7	98	93	86	72	155	146	135	18.0	66	62	57	66
9.0	225	212	196	15.0	99	94	87	72	150	141	131	18.3	66	62	58	66
9.2	218	205	189	15.2	100	95	87	73	145	137	126	18.6	67	63	58	66
9.4	211	198	183	15.5	101	96	88	73	140	132	122	18.9	68	64	59	66
9.6	204	192	178	15.7	103	97	89	73	136	128	118	19.2	68	64	60	66
9.8	198	186	172	15.9	104	98	90	73	132	124	115	19.5	69	65	60	67
10.0	192	181	167	16.2	105	99	91	73	128	120	111	19.8	70	66	61	67
10.5	178	168	155	16.8	107	101	93	74	119	112	103	20.6	71	67	62	67

Table 97: Stocking levels for Douglas-fir in the PSME/HODI plant association (full stocking = 255).

QMD	UPPER MANAGEMENT ZONE (SDI = 191)								LOWER MANAGEMENT ZONE (SDI = 128)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	166	156	145	17.4	110	103	95	74	111	104	96	21.3	73	69	64	68
11.5	155	146	135	18.0	112	105	98	74	104	97	90	22.0	75	70	65	68
12.0	146	137	127	18.6	114	108	100	75	97	91	85	22.8	76	72	66	68
12.5	137	129	119	19.2	117	110	102	75	91	86	79	23.5	78	73	68	69
13.0	129	122	112	19.7	119	112	104	75	86	81	75	24.2	79	75	69	69
13.5	122	115	106	20.3	121	114	106	76	81	77	71	24.9	81	76	70	69
14.0	115	109	100	20.9	123	116	107	76	77	72	67	25.6	82	77	72	69
14.5	109	103	95	21.4	126	118	109	76	73	69	64	26.3	84	79	73	70
15.0	104	98	91	22.0	128	120	111	77	69	65	60	26.9	85	80	74	70
15.5	99	93	86	22.5	130	122	113	77	66	62	57	27.6	86	81	75	70
16.0	94	89	82	23.1	132	124	115	77	63	59	55	28.3	88	83	76	71
16.5	90	85	78	23.6	134	126	116	77	60	57	52	28.9	89	84	78	71
17.0	86	81	75	24.2	136	128	118	77	57	54	50	29.6	90	85	79	71
17.5	82	78	72	24.7	138	130	120	78	55	52	48	30.3	92	86	80	71
18.0	79	74	69	25.2	140	131	121	78	53	50	46	30.9	93	88	81	71
18.5	76	71	66	25.8	141	133	123	78	51	48	44	31.6	94	89	82	72
19.0	73	69	63	26.3	143	135	125	78	49	46	42	32.2	96	90	83	72
19.5	70	66	61	26.8	145	137	126	79	47	44	41	32.8	97	91	84	72
20.0	67	63	59	27.3	147	138	128	79	45	42	39	33.5	98	92	85	72
20.5	65	61	56	27.8	149	140	129	79	43	41	38	34.1	99	93	86	72
21.0	63	59	54	28.4	150	142	131	79	42	39	36	34.7	100	94	87	73
21.5	60	57	53	28.9	152	143	133	79	40	38	35	35.3	101	96	88	73
22.0	58	55	51	29.4	154	145	134	80	39	37	34	36.0	103	97	89	73
22.5	56	53	49	29.9	156	147	136	80	38	35	33	36.6	104	98	90	73
23.0	55	51	47	30.4	157	148	137	80	36	34	32	37.2	105	99	91	73
23.5	53	50	46	30.9	159	150	138	80	35	33	31	37.8	106	100	92	74
24.0	51	48	45	31.4	161	151	140	80	34	32	30	38.4	107	101	93	74
24.5	50	47	43	31.9	162	153	141	80	33	31	29	39.0	108	102	94	74
25.0	48	45	42	32.3	164	154	143	81	32	30	28	39.6	109	103	95	74
25.5	47	44	41	32.8	166	156	144	81	31	29	27	40.2	110	104	96	74
26.0	45	43	39	33.3	167	157	145	81	30	28	26	40.8	111	105	97	74
26.5	44	41	38	33.8	169	159	147	81	29	28	26	41.4	112	106	98	74
27.0	43	40	37	34.3	170	160	148	81	29	27	25	42.0	113	107	99	75
27.5	42	39	36	34.8	172	162	150	81	28	26	24	42.6	115	108	100	75
28.0	41	38	35	35.2	173	163	151	81	27	25	24	43.2	116	109	101	75
28.5	39	37	34	35.7	175	165	152	82	26	25	23	43.7	117	110	101	75
29.0	38	36	33	36.2	176	166	153	82	26	24	22	44.3	118	111	102	75
30.0	37	34	32	37.1	179	169	156	82	24	23	21	45.5	119	112	104	75

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 98: Stocking levels for ponderosa pine in the PSME/SPBE plant association (full stocking = 353).

QMD	UPPER MANAGEMENT ZONE (SDI = 226)								LOWER MANAGEMENT ZONE (SDI = 152)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	13234	12308	11522	1.9	72	67	63	51	8867	8246	7720	2.4	48	45	42	43
1.2	9584	8913	8344	2.3	75	70	66	51	6421	5972	5590	2.8	50	47	44	44
1.4	7296	6785	6351	2.6	78	73	68	52	4888	4546	4255	3.2	52	49	45	45
1.6	5760	5357	5015	3.0	80	75	70	53	3859	3589	3360	3.6	54	50	47	45
1.8	4676	4349	4071	3.3	83	77	72	53	3133	2914	2727	4.0	55	51	48	46
2.0	3880	3609	3378	3.6	85	79	74	54	2600	2418	2263	4.4	57	53	49	46
2.2	3278	3049	2854	3.9	87	80	75	54	2196	2043	1912	4.8	58	54	50	47
2.4	2810	2613	2447	4.2	88	82	77	54	1883	1751	1639	5.2	59	55	51	47
2.6	2439	2268	2123	4.5	90	84	78	55	1634	1520	1423	5.5	60	56	52	47
2.8	2139	1989	1862	4.8	91	85	80	55	1433	1333	1248	5.9	61	57	53	48
3.0	1893	1761	1648	5.2	93	86	81	55	1268	1180	1104	6.3	62	58	54	48
3.2	1689	1571	1470	5.5	94	88	82	56	1132	1052	985	6.7	63	59	55	48
3.4	1517	1411	1321	5.8	96	89	83	56	1016	945	885	7.0	64	60	56	49
3.6	1371	1275	1194	6.1	97	90	84	56	919	854	800	7.4	65	60	57	49
3.8	1246	1159	1085	6.4	98	91	85	56	835	776	727	7.8	66	61	57	49
4.0	1138	1058	991	6.6	99	92	86	57	762	709	664	8.1	67	62	58	49
4.2	1044	971	909	6.9	100	93	87	57	699	650	609	8.5	67	63	59	49
4.4	961	894	837	7.2	101	94	88	57	644	599	561	8.8	68	63	59	50
4.6	888	826	773	7.5	103	95	89	57	595	554	518	9.2	69	64	60	50
4.8	824	766	717	7.8	104	96	90	57	552	513	481	9.5	69	65	60	50
5.0	767	713	667	8.1	105	97	91	58	514	478	447	9.9	70	65	61	50
5.2	715	665	623	8.4	105	98	92	58	479	446	417	10.2	71	66	62	50
5.4	669	622	582	8.7	106	99	93	58	448	417	390	10.6	71	66	62	50
5.6	627	583	546	9.0	107	100	93	58	420	391	366	10.9	72	67	63	51
5.8	589	548	513	9.2	108	101	94	58	395	367	344	11.3	72	67	63	51
6.0	555	516	483	9.5	109	101	95	58	372	346	324	11.6	73	68	64	51
6.2	524	487	456	9.8	110	102	96	58	351	326	306	12.0	74	68	64	51
6.4	495	461	431	10.1	111	103	96	59	332	309	289	12.3	74	69	65	51
6.6	469	436	408	10.4	111	104	97	59	314	292	274	12.7	75	69	65	51
6.8	445	414	387	10.6	112	104	98	59	298	277	259	13.0	75	70	65	51
7.0	423	393	368	10.9	113	105	98	59	283	263	246	13.3	76	70	66	52
7.2	402	374	350	11.2	114	106	99	59	269	250	234	13.7	76	71	66	52
7.4	383	356	333	11.5	114	106	100	59	257	239	223	14.0	77	71	67	52
7.6	365	340	318	11.7	115	107	100	59	245	228	213	14.3	77	72	67	52
7.8	349	324	304	12.0	116	108	101	59	234	217	204	14.7	78	72	68	52
8.0	334	310	290	12.3	116	108	101	60	224	208	195	15.0	78	73	68	52
8.2	319	297	278	12.6	117	109	102	60	214	199	186	15.3	78	73	68	52
8.4	306	285	266	12.8	118	110	103	60	205	191	178	15.7	79	73	69	52
8.6	294	273	256	13.1	118	110	103	60	197	183	171	16.0	79	74	69	52
8.8	282	262	245	13.4	119	111	104	60	189	176	164	16.3	80	74	69	53
9.0	271	252	236	13.6	120	111	104	60	181	169	158	16.6	80	75	70	53
9.2	260	242	227	13.9	120	112	105	60	175	162	152	17.0	81	75	70	53
9.4	251	233	218	14.2	121	112	105	60	168	156	146	17.3	81	75	70	53
9.6	242	225	210	14.4	121	113	106	60	162	151	141	17.6	81	76	71	53
9.8	233	217	203	14.7	122	113	106	60	156	145	136	18.0	82	76	71	53
10.0	225	209	196	15.0	123	114	107	61	151	140	131	18.3	82	76	72	53

10.5 | 206 | 192 | 179 | 15.6 | 124 | 115 | 108 | 61 | 138 | 128 | 120 | 19.1 | 83 | 77 | 72 | 53

Table 98: Stocking levels for ponderosa pine in the PSME/SPBE plant association (full stocking = 353).

QMD	UPPER MANAGEMENT ZONE (SDI = 226)								LOWER MANAGEMENT ZONE (SDI = 152)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	190	177	165	16.3	125	117	109	61	127	118	111	19.9	84	78	73	53
11.5	175	163	153	16.9	127	118	110	61	118	109	102	20.7	85	79	74	54
12.0	163	151	142	17.6	128	119	111	61	109	101	95	21.5	86	80	75	54
12.5	151	141	132	18.2	129	120	112	61	101	94	88	22.3	86	80	75	54
13.0	141	131	123	18.9	130	121	113	62	95	88	82	23.1	87	81	76	54
13.5	132	123	115	19.5	131	122	114	62	89	82	77	23.8	88	82	77	54
14.0	124	115	108	20.1	132	123	115	62	83	77	72	24.6	89	83	77	55
14.5	116	108	101	20.8	134	124	116	62	78	73	68	25.4	89	83	78	55
15.0	110	102	95	21.4	135	125	117	62	73	68	64	26.2	90	84	78	55
15.5	103	96	90	22.0	136	126	118	62	69	64	60	26.9	91	84	79	55
16.0	98	91	85	22.7	137	127	119	63	66	61	57	27.7	92	85	80	55
16.5	93	86	81	23.3	138	128	120	63	62	58	54	28.5	92	86	80	55
17.0	88	82	76	23.9	138	129	121	63	59	55	51	29.2	93	86	81	55
17.5	83	78	73	24.5	139	130	121	63	56	52	49	30.0	93	87	81	55
18.0	79	74	69	25.2	140	131	122	63	53	49	46	30.7	94	87	82	56
18.5	76	70	66	25.8	141	131	123	63	51	47	44	31.5	95	88	82	56
19.0	72	67	63	26.4	142	132	124	63	48	45	42	32.3	95	89	83	56
19.5	69	64	60	27.0	143	133	124	63	46	43	40	33.0	96	89	83	56
20.0	66	61	57	27.6	144	134	125	63	44	41	38	33.8	96	90	84	56
20.5	63	59	55	28.2	145	134	126	64	42	39	37	34.5	97	90	84	56
21.0	60	56	53	28.8	145	135	127	64	40	38	35	35.2	97	91	85	56
21.5	58	54	50	29.5	146	136	127	64	39	36	34	36.0	98	91	85	56
22.0	56	52	48	30.1	147	137	128	64	37	35	32	36.7	98	92	86	56
22.5	53	50	47	30.7	148	137	129	64	36	33	31	37.5	99	92	86	57
23.0	51	48	45	31.3	148	138	129	64	34	32	30	38.2	99	93	87	57
23.5	50	46	43	31.9	149	139	130	64	33	31	29	38.9	100	93	87	57
24.0	48	44	42	32.5	150	139	131	64	32	30	28	39.7	100	93	87	57
24.5	46	43	40	33.1	151	140	131	64	31	29	27	40.4	101	94	88	57
25.0	44	41	39	33.7	151	141	132	64	30	28	26	41.1	101	94	88	57
25.5	43	40	37	34.3	152	141	132	65	29	27	25	41.8	102	95	89	57
26.0	41	39	36	34.8	153	142	133	65	28	26	24	42.6	102	95	89	57
26.5	40	37	35	35.4	153	143	134	65	27	25	23	43.3	103	96	89	57
27.0	39	36	34	36.0	154	143	134	65	26	24	23	44.0	103	96	90	57
27.5	38	35	33	36.6	155	144	135	65	25	23	22	44.7	104	96	90	57
28.0	36	34	32	37.2	155	144	135	65	24	23	21	45.5	104	97	91	57
28.5	35	33	31	37.8	156	145	136	65	24	22	21	46.2	105	97	91	58
29.0	34	32	30	38.4	157	146	136	65	23	21	20	46.9	105	98	91	58
30.0	32	30	28	39.6	158	147	137	65	22	20	19	48.3	106	98	92	58

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 99: Stocking levels for Douglas-fir in the PSME/SPBE plant association (full stocking = 371).

QMD	UPPER MANAGEMENT ZONE (SDI = 278)								LOWER MANAGEMENT ZONE (SDI = 186)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	9030	8502	7862	2.4	49	46	43	61	6020	5668	5241	2.9	33	31	29	55
1.2	6857	6456	5970	2.7	54	51	47	63	4571	4304	3980	3.3	36	34	31	56
1.4	5433	5115	4730	3.0	58	55	51	64	3622	3410	3153	3.7	39	36	34	57
1.6	4441	4181	3866	3.4	62	58	54	65	2961	2787	2578	4.1	41	39	36	59
1.8	3717	3500	3236	3.7	66	62	57	66	2478	2333	2158	4.5	44	41	38	59
2.0	3171	2985	2760	4.0	69	65	60	67	2114	1990	1840	4.9	46	43	40	60
2.2	2746	2585	2390	4.3	72	68	63	67	1830	1723	1594	5.2	48	45	42	61
2.4	2408	2267	2096	4.6	76	71	66	68	1605	1511	1397	5.6	50	47	44	62
2.6	2133	2009	1857	4.9	79	74	68	69	1422	1339	1238	5.9	52	49	46	62
2.8	1908	1796	1661	5.1	82	77	71	69	1272	1197	1107	6.3	54	51	47	63
3.0	1719	1618	1496	5.4	84	79	73	70	1146	1079	998	6.6	56	53	49	63
3.2	1559	1468	1358	5.7	87	82	76	70	1040	979	905	7.0	58	55	51	64
3.4	1423	1340	1239	5.9	90	84	78	71	949	893	826	7.3	60	56	52	64
3.6	1305	1229	1136	6.2	92	87	80	71	870	819	758	7.6	62	58	54	65
3.8	1203	1133	1047	6.5	95	89	82	72	802	755	698	7.9	63	59	55	65
4.0	1113	1048	969	6.7	97	91	85	72	742	699	646	8.2	65	61	56	66
4.2	1034	974	900	7.0	99	94	87	73	689	649	600	8.5	66	62	58	66
4.4	964	908	839	7.2	102	96	89	73	643	605	560	8.8	68	64	59	66
4.6	901	849	785	7.5	104	98	91	73	601	566	523	9.1	69	65	60	67
4.8	845	796	736	7.7	106	100	92	74	564	531	491	9.4	71	67	62	67
5.0	795	748	692	8.0	108	102	94	74	530	499	461	9.7	72	68	63	67
5.2	749	705	652	8.2	110	104	96	74	499	470	435	10.0	74	69	64	68
5.4	708	666	616	8.4	113	106	98	74	472	444	411	10.3	75	71	65	68
5.6	670	631	583	8.7	115	108	100	75	447	420	389	10.6	76	72	66	68
5.8	635	598	553	8.9	117	110	101	75	423	399	369	10.9	78	73	68	69
6.0	604	568	525	9.1	119	112	103	75	402	379	350	11.2	79	74	69	69
6.2	574	541	500	9.4	120	113	105	76	383	361	333	11.5	80	76	70	69
6.4	547	515	477	9.6	122	115	106	76	365	344	318	11.7	82	77	71	69
6.6	523	492	455	9.8	124	117	108	76	348	328	303	12.0	83	78	72	70
6.8	500	470	435	10.0	126	119	110	76	333	314	290	12.3	84	79	73	70
7.0	478	450	416	10.3	128	120	111	77	319	300	278	12.6	85	80	74	70
7.2	458	431	399	10.5	130	122	113	77	306	288	266	12.8	86	81	75	70
7.4	440	414	383	10.7	131	124	114	77	293	276	255	13.1	88	82	76	70
7.6	422	398	368	10.9	133	125	116	77	282	265	245	13.4	89	84	77	71
7.8	406	382	354	11.1	135	127	117	77	271	255	236	13.6	90	85	78	71
8.0	391	368	340	11.3	136	128	119	78	261	245	227	13.9	91	86	79	71
8.2	377	355	328	11.6	138	130	120	78	251	236	219	14.2	92	87	80	71
8.4	363	342	316	11.8	140	132	122	78	242	228	211	14.4	93	88	81	71
8.6	350	330	305	12.0	141	133	123	78	234	220	203	14.7	94	89	82	72
8.8	338	319	295	12.2	143	135	124	78	226	212	196	14.9	95	90	83	72
9.0	327	308	285	12.4	145	136	126	79	218	205	190	15.2	96	91	84	72
9.2	317	298	276	12.6	146	138	127	79	211	199	184	15.4	97	92	85	72
9.4	306	288	267	12.8	148	139	129	79	204	192	178	15.7	98	93	86	72
9.6	297	279	258	13.0	149	140	130	79	198	186	172	15.9	99	94	87	72
9.8	288	271	250	13.2	151	142	131	79	192	181	167	16.2	100	95	87	73
10.0	279	263	243	13.4	152	143	133	79	186	175	162	16.4	101	96	88	73
10.5	259	244	226	13.9	156	147	136	80	173	163	150	17.1	104	98	90	73

Table 99: Stocking levels for Douglas-fir in the PSME/SPBE plant association (full stocking = 371).

QMD	UPPER MANAGEMENT ZONE (SDI = 278)								LOWER MANAGEMENT ZONE (SDI = 186)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	242	228	210	14.4	159	150	139	80	161	152	140	17.7	106	100	93	74
11.5	226	213	197	14.9	163	153	142	80	151	142	131	18.3	109	102	95	74
12.0	212	200	184	15.4	166	157	145	81	141	133	123	18.9	111	104	97	74
12.5	199	188	173	15.9	170	160	148	81	133	125	116	19.5	113	107	99	75
13.0	188	177	163	16.4	173	163	151	81	125	118	109	20.0	115	109	100	75
13.5	177	167	154	16.8	176	166	153	82	118	111	103	20.6	118	111	102	75
14.0	168	158	146	17.3	179	169	156	82	112	105	97	21.2	120	113	104	75
14.5	159	150	139	17.8	183	172	159	82	106	100	92	21.8	122	115	106	76
15.0	151	142	132	18.2	186	175	162	83	101	95	88	22.3	124	117	108	76
15.5	144	136	125	18.7	189	178	164	83	96	90	84	22.9	126	118	110	76
16.0	137	129	119	19.1	192	180	167	83	91	86	80	23.4	128	120	111	77
16.5	131	123	114	19.6	195	183	169	83	87	82	76	24.0	130	122	113	77
17.0	125	118	109	20.0	197	186	172	84	83	79	73	24.5	132	124	115	77
17.5	120	113	104	20.5	200	189	174	84	80	75	70	25.1	133	126	116	77
18.0	115	108	100	20.9	203	191	177	84	77	72	67	25.6	135	127	118	77
18.5	110	104	96	21.4	206	194	179	84	73	69	64	26.2	137	129	119	78
19.0	106	100	92	21.8	208	196	181	84	71	66	61	26.7	139	131	121	78
19.5	102	96	89	22.2	211	199	184	85	68	64	59	27.2	141	133	123	78
20.0	98	92	85	22.7	214	201	186	85	65	61	57	27.7	143	134	124	78
20.5	94	89	82	23.1	216	204	188	85	63	59	55	28.3	144	136	126	78
21.0	91	86	79	23.5	219	206	191	85	61	57	53	28.8	146	137	127	79
21.5	88	83	76	23.9	221	209	193	85	59	55	51	29.3	148	139	129	79
22.0	85	80	74	24.3	224	211	195	86	57	53	49	29.8	149	141	130	79
22.5	82	77	71	24.8	226	213	197	86	55	51	48	30.3	151	142	131	79
23.0	79	75	69	25.2	229	216	199	86	53	50	46	30.8	153	144	133	79
23.5	77	72	67	25.6	231	218	201	86	51	48	45	31.3	154	145	134	80
24.0	74	70	65	26.0	234	220	203	86	50	47	43	31.8	156	147	136	80
24.5	72	68	63	26.4	236	222	206	86	48	45	42	32.3	157	148	137	80
25.0	70	66	61	26.8	238	225	208	87	47	44	41	32.8	159	150	138	80
25.5	68	64	59	27.2	241	227	210	87	45	43	39	33.3	161	151	140	80
26.0	66	62	57	27.6	243	229	212	87	44	41	38	33.8	162	153	141	80
26.5	64	60	56	28.0	245	231	214	87	43	40	37	34.3	164	154	142	80
27.0	62	59	54	28.4	248	233	216	87	42	39	36	34.8	165	155	144	81
27.5	61	57	53	28.8	250	235	218	87	40	38	35	35.3	167	157	145	81
28.0	59	56	51	29.2	252	237	219	87	39	37	34	35.8	168	158	146	81
28.5	57	54	50	29.6	254	239	221	88	38	36	33	36.3	170	160	148	81
29.0	56	53	49	30.0	256	241	223	88	37	35	32	36.7	171	161	149	81
30.0	53	50	46	30.8	261	245	227	88	35	33	31	37.7	174	164	151	81

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 100: Stocking levels for ponderosa pine in the PSME/SYAL plant association
(full stocking = 273).

QMD	UPPER MANAGEMENT ZONE (SDI = 151)								LOWER MANAGEMENT ZONE (SDI = 101)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	8793	8177	7655	2.4	48	45	42	43	5891	5479	5129	2.9	32	30	28	36
1.2	6368	5922	5544	2.8	50	47	44	44	4266	3968	3714	3.4	34	31	29	37
1.4	4847	4508	4220	3.2	52	48	45	45	3248	3020	2827	3.9	35	32	30	37
1.6	3827	3559	3332	3.6	53	50	47	45	2564	2384	2232	4.4	36	33	31	38
1.8	3107	2889	2705	4.0	55	51	48	46	2081	1936	1812	4.9	37	34	32	38
2.0	2578	2398	2244	4.4	56	52	49	46	1727	1606	1504	5.4	38	35	33	39
2.2	2178	2025	1896	4.8	57	53	50	47	1459	1357	1270	5.9	39	36	34	39
2.4	1867	1736	1625	5.2	59	55	51	47	1251	1163	1089	6.3	39	37	34	40
2.6	1620	1507	1411	5.6	60	56	52	47	1086	1010	945	6.8	40	37	35	40
2.8	1421	1322	1237	5.9	61	57	53	48	952	886	829	7.3	41	38	35	40
3.0	1258	1170	1095	6.3	62	57	54	48	843	784	734	7.7	41	38	36	40
3.2	1122	1043	977	6.7	63	58	55	48	752	699	654	8.2	42	39	37	41
3.4	1008	937	877	7.1	64	59	55	48	675	628	588	8.6	43	40	37	41
3.6	911	847	793	7.4	64	60	56	49	610	568	531	9.1	43	40	38	41
3.8	828	770	721	7.8	65	61	57	49	555	516	483	9.5	44	41	38	41
4.0	756	703	658	8.2	66	61	57	49	506	471	441	10.0	44	41	38	42
4.2	693	645	604	8.5	67	62	58	49	465	432	404	10.4	45	42	39	42
4.4	639	594	556	8.9	67	63	59	49	428	398	372	10.8	45	42	39	42
4.6	590	549	514	9.2	68	63	59	50	395	368	344	11.3	46	42	40	42
4.8	547	509	477	9.6	69	64	60	50	367	341	319	11.7	46	43	40	42
5.0	509	474	443	9.9	69	65	60	50	341	317	297	12.1	47	43	41	43
5.2	475	442	414	10.3	70	65	61	50	318	296	277	12.6	47	44	41	43
5.4	444	413	387	10.6	71	66	62	50	298	277	259	13.0	47	44	41	43
5.6	417	388	363	11.0	71	66	62	50	279	260	243	13.4	48	44	42	43
5.8	392	364	341	11.3	72	67	63	51	262	244	228	13.8	48	45	42	43
6.0	369	343	321	11.7	72	67	63	51	247	230	215	14.3	49	45	42	43
6.2	348	324	303	12.0	73	68	64	51	233	217	203	14.7	49	45	43	44
6.4	329	306	286	12.4	73	68	64	51	220	205	192	15.1	49	46	43	44
6.6	312	290	271	12.7	74	69	64	51	209	194	182	15.5	50	46	43	44
6.8	296	275	257	13.0	75	69	65	51	198	184	172	15.9	50	46	43	44
7.0	281	261	244	13.4	75	70	65	51	188	175	164	16.4	50	47	44	44
7.2	267	248	233	13.7	76	70	66	52	179	166	156	16.8	51	47	44	44
7.4	254	237	222	14.1	76	71	66	52	170	159	148	17.2	51	47	44	44
7.6	243	226	211	14.4	76	71	67	52	163	151	142	17.6	51	48	45	44
7.8	232	216	202	14.7	77	72	67	52	155	144	135	18.0	52	48	45	44
8.0	222	206	193	15.1	77	72	67	52	149	138	129	18.4	52	48	45	45
8.2	212	197	185	15.4	78	72	68	52	142	132	124	18.8	52	48	45	45
8.4	203	189	177	15.7	78	73	68	52	136	127	119	19.2	52	49	46	45
8.6	195	181	170	16.1	79	73	68	52	131	122	114	19.6	53	49	46	45
8.8	187	174	163	16.4	79	74	69	52	125	117	109	20.0	53	49	46	45
9.0	180	167	157	16.7	79	74	69	52	121	112	105	20.4	53	50	46	45
9.2	173	161	151	17.0	80	74	70	53	116	108	101	20.8	54	50	47	45
9.4	167	155	145	17.4	80	75	70	53	112	104	97	21.2	54	50	47	45
9.6	161	149	140	17.7	81	75	70	53	108	100	94	21.6	54	50	47	45
9.8	155	144	135	18.0	81	75	71	53	104	96	90	22.0	54	51	47	45
10.0	149	139	130	18.4	81	76	71	53	100	93	87	22.4	55	51	48	46

10.5 | 137 | 127 | 119 | 19.2 | 82 | 77 | 72 | 53 | 92 | 85 | 80 | 23.4 | 55 | 51 | 48 | 46

Table 100: Stocking levels for ponderosa pine in the PSME/SYAL plant association
(full stocking = 273).

QMD	UPPER MANAGEMENT ZONE (SDI = 151)								LOWER MANAGEMENT ZONE (SDI = 101)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	126	117	110	20.0	83	77	72	53	85	79	74	24.4	56	52	49	46
11.5	117	108	102	20.8	84	78	73	54	78	73	68	25.4	56	52	49	46
12.0	108	101	94	21.6	85	79	74	54	72	67	63	26.3	57	53	50	46
12.5	101	94	88	22.4	86	80	75	54	67	63	59	27.3	57	53	50	46
13.0	94	87	82	23.2	87	80	75	54	63	58	55	28.3	58	54	50	47
13.5	88	82	76	23.9	87	81	76	54	59	55	51	29.2	58	54	51	47
14.0	82	77	72	24.7	88	82	77	54	55	51	48	30.2	59	55	51	47
14.5	77	72	67	25.5	89	82	77	55	52	48	45	31.2	59	55	52	47
15.0	73	68	63	26.3	89	83	78	55	49	45	42	32.1	60	56	52	47
15.5	69	64	60	27.1	90	84	78	55	46	43	40	33.0	60	56	53	47
16.0	65	60	57	27.8	91	84	79	55	44	40	38	34.0	61	57	53	48
16.5	62	57	54	28.6	91	85	80	55	41	38	36	34.9	61	57	53	48
17.0	58	54	51	29.4	92	86	80	55	39	36	34	35.9	62	57	54	48
17.5	55	52	48	30.1	93	86	81	55	37	35	32	36.8	62	58	54	48
18.0	53	49	46	30.9	93	87	81	55	35	33	31	37.7	62	58	54	48
18.5	50	47	44	31.6	94	87	82	56	34	31	29	38.6	63	58	55	48
19.0	48	45	42	32.4	94	88	82	56	32	30	28	39.6	63	59	55	48
19.5	46	43	40	33.1	95	88	83	56	31	29	27	40.5	64	59	55	48
20.0	44	41	38	33.9	96	89	83	56	29	27	26	41.4	64	60	56	48
20.5	42	39	36	34.6	96	89	84	56	28	26	24	42.3	64	60	56	49
21.0	40	37	35	35.4	97	90	84	56	27	25	23	43.2	65	60	56	49
21.5	39	36	34	36.1	97	90	85	56	26	24	22	44.1	65	61	57	49
22.0	37	34	32	36.9	98	91	85	56	25	23	22	45.1	65	61	57	49
22.5	36	33	31	37.6	98	91	85	56	24	22	21	46.0	66	61	57	49
23.0	34	32	30	38.4	99	92	86	56	23	21	20	46.9	66	61	58	49
23.5	33	31	29	39.1	99	92	86	57	22	21	19	47.8	66	62	58	49
24.0	32	29	28	39.8	100	93	87	57	21	20	18	48.7	67	62	58	49
24.5	31	28	27	40.6	100	93	87	57	20	19	18	49.6	67	62	58	49
25.0	29	27	26	41.3	101	94	88	57	20	18	17	50.5	67	63	59	49
25.5	28	26	25	42.0	101	94	88	57	19	18	17	51.3	68	63	59	50
26.0	28	26	24	42.8	101	94	88	57	18	17	16	52.2	68	63	59	50
26.5	27	25	23	43.5	102	95	89	57	18	17	16	53.1	68	63	59	50
27.0	26	24	22	44.2	102	95	89	57	17	16	15	54.0	69	64	60	50
27.5	25	23	22	44.9	103	96	89	57	17	16	15	54.9	69	64	60	50
28.0	24	22	21	45.7	103	96	90	57	16	15	14	55.8	69	64	60	50
28.5	23	22	20	46.4	104	96	90	57	16	15	14	56.7	69	65	60	50
29.0	23	21	20	47.1	104	97	91	57	15	14	13	57.5	70	65	61	50
30.0	21	20	19	48.5	105	98	91	58	14	13	12	59.3	70	65	61	50

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 101: Stocking levels for Douglas-fir in the PSME/SYAL plant association (full stocking = 247).

QMD	UPPER MANAGEMENT ZONE (SDI = 185)								LOWER MANAGEMENT ZONE (SDI = 124)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	6012	5660	5234	2.9	33	31	29	55	4008	3774	3489	3.5	22	21	19	49
1.2	4565	4298	3975	3.3	36	34	31	56	3044	2865	2650	4.1	24	23	21	50
1.4	3617	3406	3149	3.7	39	36	34	57	2411	2270	2099	4.6	26	24	22	51
1.6	2957	2784	2574	4.1	41	39	36	58	1971	1856	1716	5.1	28	26	24	52
1.8	2475	2330	2155	4.5	44	41	38	59	1650	1553	1436	5.5	29	27	25	53
2.0	2111	1987	1838	4.9	46	43	40	60	1407	1325	1225	6.0	31	29	27	54
2.2	1828	1721	1591	5.2	48	45	42	61	1219	1147	1061	6.4	32	30	28	55
2.4	1603	1509	1395	5.6	50	47	44	62	1069	1006	930	6.9	34	32	29	55
2.6	1420	1337	1237	6.0	52	49	46	62	947	892	824	7.3	35	33	30	56
2.8	1270	1196	1106	6.3	54	51	47	63	847	797	737	7.7	36	34	32	56
3.0	1144	1077	996	6.6	56	53	49	63	763	718	664	8.1	37	35	33	57
3.2	1038	977	904	7.0	58	55	50	64	692	652	603	8.5	39	36	34	57
3.4	947	892	825	7.3	60	56	52	64	632	595	550	8.9	40	37	35	58
3.6	869	818	757	7.6	61	58	53	65	579	545	504	9.3	41	39	36	58
3.8	801	754	697	7.9	63	59	55	65	534	503	465	9.7	42	40	37	59
4.0	741	698	645	8.2	65	61	56	66	494	465	430	10.1	43	41	38	59
4.2	689	648	599	8.5	66	62	58	66	459	432	400	10.5	44	42	38	60
4.4	642	604	559	8.9	68	64	59	66	428	403	373	10.8	45	43	39	60
4.6	600	565	522	9.2	69	65	60	67	400	377	348	11.2	46	43	40	60
4.8	563	530	490	9.5	71	67	62	67	375	353	327	11.6	47	44	41	61
5.0	529	498	461	9.7	72	68	63	67	353	332	307	11.9	48	45	42	61
5.2	499	470	434	10.0	74	69	64	68	332	313	289	12.3	49	46	43	61
5.4	471	444	410	10.3	75	71	65	68	314	296	273	12.7	50	47	43	62
5.6	446	420	388	10.6	76	72	66	68	297	280	259	13.0	51	48	44	62
5.8	423	398	368	10.9	78	73	68	69	282	265	245	13.4	52	49	45	62
6.0	402	378	350	11.2	79	74	69	69	268	252	233	13.7	53	50	46	62
6.2	382	360	333	11.5	80	75	70	69	255	240	222	14.0	53	50	47	63
6.4	364	343	317	11.7	81	77	71	69	243	229	212	14.4	54	51	47	63
6.6	348	328	303	12.0	83	78	72	70	232	218	202	14.7	55	52	48	63
6.8	333	313	290	12.3	84	79	73	70	222	209	193	15.1	56	53	49	63
7.0	318	300	277	12.6	85	80	74	70	212	200	185	15.4	57	53	49	64
7.2	305	287	266	12.8	86	81	75	70	203	192	177	15.7	58	54	50	64
7.4	293	276	255	13.1	87	82	76	70	195	184	170	16.1	58	55	51	64
7.6	281	265	245	13.4	89	83	77	71	187	176	163	16.4	59	56	51	64
7.8	270	255	235	13.6	90	84	78	71	180	170	157	16.7	60	56	52	64
8.0	260	245	227	13.9	91	86	79	71	173	163	151	17.0	61	57	53	65
8.2	251	236	218	14.2	92	87	80	71	167	157	146	17.3	61	58	53	65
8.4	242	228	210	14.4	93	88	81	71	161	152	140	17.7	62	58	54	65
8.6	233	220	203	14.7	94	89	82	72	156	146	135	18.0	63	59	55	65
8.8	225	212	196	14.9	95	90	83	72	150	141	131	18.3	63	60	55	65
9.0	218	205	190	15.2	96	91	84	72	145	137	126	18.6	64	60	56	65
9.2	211	198	183	15.5	97	92	85	72	140	132	122	18.9	65	61	56	66
9.4	204	192	178	15.7	98	93	86	72	136	128	118	19.2	66	62	57	66
9.6	198	186	172	16.0	99	94	86	72	132	124	115	19.5	66	62	58	66
9.8	192	180	167	16.2	100	94	87	73	128	120	111	19.8	67	63	58	66
10.0	186	175	162	16.5	101	95	88	73	124	117	108	20.2	68	64	59	66
10.5	173	162	150	17.1	104	98	90	73	115	108	100	20.9	69	65	60	67

Table 101: Stocking levels for Douglas-fir in the PSME/SYAL plant association (full stocking = 247).

QMD	UPPER MANAGEMENT ZONE (SDI = 185)								LOWER MANAGEMENT ZONE (SDI = 124)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	161	151	140	17.7	106	100	92	74	107	101	93	21.7	71	67	62	67
11.5	150	142	131	18.3	109	102	94	74	100	94	87	22.4	72	68	63	67
12.0	141	133	123	18.9	111	104	96	74	94	89	82	23.1	74	70	64	68
12.5	133	125	115	19.5	113	106	98	75	88	83	77	23.8	75	71	66	68
13.0	125	118	109	20.1	115	108	100	75	83	78	73	24.6	77	72	67	68
13.5	118	111	103	20.6	117	111	102	75	79	74	69	25.3	78	74	68	69
14.0	112	105	97	21.2	119	113	104	75	75	70	65	26.0	80	75	69	69
14.5	106	100	92	21.8	122	114	106	76	71	67	62	26.7	81	76	71	69
15.0	101	95	88	22.3	124	116	108	76	67	63	58	27.4	82	78	72	69
15.5	96	90	83	22.9	126	118	109	76	64	60	56	28.1	84	79	73	70
16.0	91	86	80	23.5	128	120	111	76	61	57	53	28.7	85	80	74	70
16.5	87	82	76	24.0	130	122	113	77	58	55	51	29.4	86	81	75	70
17.0	83	79	73	24.6	131	124	114	77	56	52	48	30.1	88	82	76	70
17.5	80	75	69	25.1	133	126	116	77	53	50	46	30.7	89	84	77	71
18.0	76	72	67	25.6	135	127	118	77	51	48	44	31.4	90	85	78	71
18.5	73	69	64	26.2	137	129	119	78	49	46	43	32.1	91	86	80	71
19.0	70	66	61	26.7	139	131	121	78	47	44	41	32.7	93	87	81	71
19.5	68	64	59	27.2	141	132	122	78	45	43	39	33.4	94	88	82	72
20.0	65	61	57	27.8	142	134	124	78	43	41	38	34.0	95	89	83	72
20.5	63	59	55	28.3	144	136	125	78	42	39	36	34.6	96	90	84	72
21.0	61	57	53	28.8	146	137	127	79	40	38	35	35.3	97	91	85	72
21.5	58	55	51	29.3	147	139	128	79	39	37	34	35.9	98	93	86	72
22.0	56	53	49	29.8	149	140	130	79	38	35	33	36.5	99	94	87	72
22.5	55	51	48	30.4	151	142	131	79	36	34	32	37.2	101	95	88	73
23.0	53	50	46	30.9	152	143	133	79	35	33	31	37.8	102	96	88	73
23.5	51	48	45	31.4	154	145	134	80	34	32	30	38.4	103	97	89	73
24.0	50	47	43	31.9	156	147	135	80	33	31	29	39.0	104	98	90	73
24.5	48	45	42	32.4	157	148	137	80	32	30	28	39.6	105	99	91	73
25.0	47	44	41	32.9	159	149	138	80	31	29	27	40.2	106	100	92	73
25.5	45	43	39	33.4	160	151	140	80	30	28	26	40.9	107	101	93	74
26.0	44	41	38	33.9	162	152	141	80	29	28	25	41.5	108	102	94	74
26.5	43	40	37	34.3	163	154	142	80	28	27	25	42.1	109	103	95	74
27.0	41	39	36	34.8	165	155	144	81	28	26	24	42.7	110	103	96	74
27.5	40	38	35	35.3	166	157	145	81	27	25	23	43.3	111	104	97	74
28.0	39	37	34	35.8	168	158	146	81	26	25	23	43.8	112	105	97	74
28.5	38	36	33	36.3	169	159	147	81	25	24	22	44.4	113	106	98	75
29.0	37	35	32	36.8	171	161	149	81	25	23	22	45.0	114	107	99	75
30.0	35	33	31	37.7	174	163	151	81	24	22	21	46.2	116	109	101	75

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 102: Stocking levels for western larch in the PSME/SYAL plant association (full stocking = 205).

QMD	UPPER MANAGEMENT ZONE (SDI = 154)								LOWER MANAGEMENT ZONE (SDI = 103)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	8260	7777	7191	2.5	45	42	39	49	5507	5184	4794	3.0	30	28	26	42
1.2	6025	5673	5246	2.9	47	45	41	50	4017	3782	3497	3.5	32	30	27	43
1.4	4615	4345	4018	3.3	49	46	43	51	3077	2897	2679	4.0	33	31	29	44
1.6	3663	3449	3189	3.7	51	48	45	51	2442	2299	2126	4.5	34	32	30	44
1.8	2988	2813	2601	4.1	53	50	46	52	1992	1875	1734	5.0	35	33	31	45
2.0	2490	2344	2168	4.5	54	51	47	53	1660	1563	1445	5.5	36	34	32	45
2.2	2111	1988	1838	4.9	56	52	49	53	1408	1325	1225	6.0	37	35	32	46
2.4	1816	1710	1581	5.3	57	54	50	53	1211	1140	1054	6.4	38	36	33	46
2.6	1582	1489	1377	5.6	58	55	51	54	1054	993	918	6.9	39	37	34	47
2.8	1391	1310	1211	6.0	59	56	52	54	927	873	807	7.4	40	37	35	47
3.0	1235	1162	1075	6.4	61	57	53	55	823	775	717	7.8	40	38	35	47
3.2	1104	1040	961	6.7	62	58	54	55	736	693	641	8.3	41	39	36	48
3.4	994	936	866	7.1	63	59	55	55	663	624	577	8.7	42	39	36	48
3.6	901	848	784	7.5	64	60	55	55	600	565	523	9.2	42	40	37	48
3.8	820	772	714	7.8	65	61	56	56	547	515	476	9.6	43	41	37	48
4.0	751	707	653	8.2	66	62	57	56	500	471	436	10.0	44	41	38	49
4.2	690	649	601	8.5	66	62	58	56	460	433	400	10.5	44	42	39	49
4.4	637	599	554	8.9	67	63	59	56	424	400	369	10.9	45	42	39	49
4.6	589	555	513	9.2	68	64	59	57	393	370	342	11.3	45	43	39	49
4.8	548	516	477	9.6	69	65	60	57	365	344	318	11.7	46	43	40	50
5.0	510	480	444	9.9	70	66	61	57	340	320	296	12.2	46	44	40	50
5.2	477	449	415	10.3	70	66	61	57	318	299	277	12.6	47	44	41	50
5.4	447	420	389	10.6	71	67	62	57	298	280	259	13.0	47	45	41	50
5.6	419	395	365	11.0	72	68	62	58	280	263	243	13.4	48	45	42	50
5.8	395	372	344	11.3	72	68	63	58	263	248	229	13.8	48	45	42	50
6.0	372	350	324	11.6	73	69	64	58	248	234	216	14.2	49	46	42	51
6.2	352	331	306	12.0	74	69	64	58	234	221	204	14.6	49	46	43	51
6.4	333	313	290	12.3	74	70	65	58	222	209	193	15.1	50	47	43	51
6.6	316	297	275	12.6	75	71	65	58	210	198	183	15.5	50	47	44	51
6.8	300	282	261	13.0	76	71	66	58	200	188	174	15.9	50	47	44	51
7.0	285	268	248	13.3	76	72	66	59	190	179	165	16.3	51	48	44	51
7.2	272	256	236	13.6	77	72	67	59	181	170	158	16.7	51	48	45	52
7.4	259	244	225	13.9	77	73	67	59	173	163	150	17.1	52	49	45	52
7.6	247	233	215	14.3	78	73	68	59	165	155	144	17.5	52	49	45	52
7.8	236	223	206	14.6	78	74	68	59	158	148	137	17.9	52	49	46	52
8.0	226	213	197	14.9	79	74	69	59	151	142	131	18.3	53	50	46	52
8.2	217	204	189	15.2	80	75	69	59	145	136	126	18.7	53	50	46	52
8.4	208	196	181	15.6	80	75	70	59	139	131	121	19.0	53	50	46	52
8.6	200	188	174	15.9	81	76	70	60	133	125	116	19.4	54	51	47	52
8.8	192	181	167	16.2	81	76	71	60	128	120	111	19.8	54	51	47	52
9.0	185	174	161	16.5	82	77	71	60	123	116	107	20.2	54	51	47	53
9.2	178	167	155	16.8	82	77	71	60	118	112	103	20.6	55	51	48	53
9.4	171	161	149	17.1	82	78	72	60	114	107	99	21.0	55	52	48	53
9.6	165	155	144	17.5	83	78	72	60	110	104	96	21.4	55	52	48	53
9.8	159	150	139	17.8	83	79	73	60	106	100	92	21.8	56	52	48	53
10.0	154	145	134	18.1	84	79	73	60	103	97	89	22.1	56	53	49	53
10.5	141	133	123	18.9	85	80	74	61	94	89	82	23.1	57	53	49	53

Table 102: Stocking levels for western larch in the PSME/SYAL plant association (full stocking = 205).

QMD	UPPER MANAGEMENT ZONE (SDI = 154)								LOWER MANAGEMENT ZONE (SDI = 103)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	130	123	114	19.6	86	81	75	61	87	82	76	24.1	57	54	50	54
11.5	121	114	105	20.4	87	82	76	61	81	76	70	25.0	58	55	51	54
12.0	112	106	98	21.2	88	83	77	61	75	70	65	25.9	59	55	51	54
12.5	105	98	91	21.9	89	84	78	61	70	66	61	26.9	59	56	52	54
13.0	98	92	85	22.7	90	85	78	62	65	61	57	27.8	60	57	52	54
13.5	92	86	80	23.4	91	86	79	62	61	57	53	28.7	61	57	53	55
14.0	86	81	75	24.2	92	86	80	62	57	54	50	29.6	61	58	53	55
14.5	81	76	70	24.9	93	87	81	62	54	51	47	30.5	62	58	54	55
15.0	76	72	66	25.7	94	88	81	62	51	48	44	31.5	62	59	54	55
15.5	72	68	63	26.4	94	89	82	62	48	45	42	32.4	63	59	55	55
16.0	68	64	59	27.2	95	90	83	63	45	43	40	33.3	63	60	55	55
16.5	65	61	56	27.9	96	90	84	63	43	41	38	34.2	64	60	56	55
17.0	61	58	53	28.6	97	91	84	63	41	39	36	35.0	65	61	56	56
17.5	58	55	51	29.3	98	92	85	63	39	37	34	35.9	65	61	57	56
18.0	56	52	48	30.1	98	93	86	63	37	35	32	36.8	66	62	57	56
18.5	53	50	46	30.8	99	93	86	63	35	33	31	37.7	66	62	57	56
19.0	51	48	44	31.5	100	94	87	63	34	32	29	38.6	67	63	58	56
19.5	48	46	42	32.2	100	95	87	64	32	30	28	39.5	67	63	58	56
20.0	46	44	40	32.9	101	95	88	64	31	29	27	40.3	67	63	59	56
20.5	44	42	39	33.6	102	96	89	64	30	28	26	41.2	68	64	59	57
21.0	43	40	37	34.4	102	96	89	64	28	27	25	42.1	68	64	59	57
21.5	41	39	36	35.1	103	97	90	64	27	26	24	42.9	69	65	60	57
22.0	39	37	34	35.8	104	98	90	64	26	25	23	43.8	69	65	60	57
22.5	38	36	33	36.5	104	98	91	64	25	24	22	44.7	70	66	61	57
23.0	36	34	32	37.2	105	99	91	64	24	23	21	45.5	70	66	61	57
23.5	35	33	31	37.9	106	99	92	64	23	22	20	46.4	70	66	61	57
24.0	34	32	29	38.6	106	100	93	65	23	21	20	47.2	71	67	62	57
24.5	33	31	28	39.3	107	101	93	65	22	20	19	48.1	71	67	62	57
25.0	32	30	27	39.9	107	101	94	65	21	20	18	48.9	72	67	62	58
25.5	30	29	27	40.6	108	102	94	65	20	19	18	49.8	72	68	63	58
26.0	29	28	26	41.3	109	102	95	65	20	18	17	50.6	72	68	63	58
26.5	28	27	25	42.0	109	103	95	65	19	18	17	51.5	73	69	63	58
27.0	28	26	24	42.7	110	103	95	65	18	17	16	52.3	73	69	64	58
27.5	27	25	23	43.4	110	104	96	65	18	17	16	53.1	73	69	64	58
28.0	26	24	23	44.1	111	104	96	65	17	16	15	54.0	74	70	64	58
28.5	25	24	22	44.7	111	105	97	65	17	16	15	54.8	74	70	65	58
29.0	24	23	21	45.4	112	105	97	66	16	15	14	55.6	75	70	65	58
30.0	23	22	20	46.8	113	106	98	66	15	14	13	57.3	75	71	66	58

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the "CL" equation from Dealy (1985) and the basal area per acre for an even-aged structure (EA columns).

Table 103: Stocking levels for ponderosa pine in the PSME/SYOR plant association
(full stocking = 361).

QMD	UPPER MANAGEMENT ZONE (SDI = 180)								LOWER MANAGEMENT ZONE (SDI = 120)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	10541	9803	9177	2.2	57	53	50	47	7062	6568	6148	2.7	39	36	34	39
1.2	7633	7099	6646	2.6	60	56	52	47	5114	4756	4453	3.1	40	37	35	40
1.4	5811	5404	5059	2.9	62	58	54	48	3893	3621	3389	3.6	42	39	36	41
1.6	4587	4266	3994	3.3	64	60	56	48	3074	2858	2676	4.0	43	40	37	41
1.8	3724	3463	3242	3.7	66	61	57	49	2495	2321	2172	4.5	44	41	38	42
2.0	3091	2874	2691	4.0	67	63	59	49	2071	1926	1803	4.9	45	42	39	42
2.2	2611	2428	2273	4.4	69	64	60	50	1749	1627	1523	5.4	46	43	40	42
2.4	2238	2081	1949	4.7	70	65	61	50	1500	1395	1306	5.8	47	44	41	43
2.6	1943	1807	1691	5.1	72	67	62	51	1301	1210	1133	6.2	48	45	42	43
2.8	1704	1584	1483	5.4	73	68	63	51	1141	1062	994	6.6	49	45	42	43
3.0	1508	1402	1313	5.8	74	69	64	51	1010	940	880	7.1	50	46	43	44
3.2	1345	1251	1171	6.1	75	70	65	51	901	838	785	7.5	50	47	44	44
3.4	1208	1124	1052	6.5	76	71	66	52	810	753	705	7.9	51	47	44	44
3.6	1092	1016	951	6.8	77	72	67	52	732	680	637	8.3	52	48	45	45
3.8	992	923	864	7.1	78	73	68	52	665	618	579	8.7	52	49	46	45
4.0	906	843	789	7.5	79	74	69	52	607	565	529	9.1	53	49	46	45
4.2	831	773	724	7.8	80	74	70	53	557	518	485	9.5	54	50	47	45
4.4	766	712	666	8.1	81	75	70	53	513	477	447	9.9	54	50	47	45
4.6	708	658	616	8.4	82	76	71	53	474	441	413	10.3	55	51	48	46
4.8	656	610	571	8.8	82	77	72	53	440	409	383	10.7	55	51	48	46
5.0	611	568	532	9.1	83	77	72	53	409	380	356	11.1	56	52	49	46
5.2	570	530	496	9.4	84	78	73	54	382	355	332	11.5	56	52	49	46
5.4	533	495	464	9.7	85	79	74	54	357	332	311	11.9	57	53	49	46
5.6	500	465	435	10.0	85	79	74	54	335	311	291	12.3	57	53	50	46
5.8	469	437	409	10.4	86	80	75	54	315	293	274	12.6	58	54	50	47
6.0	442	411	385	10.7	87	81	76	54	296	275	258	13.0	58	54	51	47
6.2	417	388	363	11.0	87	81	76	54	280	260	243	13.4	59	55	51	47
6.4	394	367	343	11.3	88	82	77	54	264	246	230	13.8	59	55	51	47
6.6	373	347	325	11.6	89	83	77	55	250	233	218	14.2	59	55	52	47
6.8	354	329	308	11.9	89	83	78	55	237	221	207	14.6	60	56	52	47
7.0	337	313	293	12.2	90	84	78	55	225	210	196	14.9	60	56	52	47
7.2	320	298	279	12.5	91	84	79	55	215	200	187	15.3	61	56	53	47
7.4	305	284	266	12.8	91	85	79	55	204	190	178	15.7	61	57	53	48
7.6	291	271	253	13.1	92	85	80	55	195	181	170	16.1	61	57	53	48
7.8	278	258	242	13.5	92	86	80	55	186	173	162	16.4	62	57	54	48
8.0	266	247	231	13.8	93	86	81	55	178	166	155	16.8	62	58	54	48
8.2	254	237	221	14.1	93	87	81	55	170	158	148	17.2	62	58	54	48
8.4	244	227	212	14.4	94	87	82	56	163	152	142	17.6	63	58	55	48
8.6	234	217	204	14.7	94	88	82	56	157	146	136	17.9	63	59	55	48
8.8	224	209	195	15.0	95	88	83	56	150	140	131	18.3	64	59	55	48
9.0	216	201	188	15.3	95	89	83	56	145	134	126	18.7	64	59	56	48
9.2	207	193	181	15.6	96	89	83	56	139	129	121	19.0	64	60	56	49
9.4	200	186	174	15.9	96	90	84	56	134	124	116	19.4	64	60	56	49
9.6	192	179	168	16.2	97	90	84	56	129	120	112	19.8	65	60	56	49
9.8	186	173	162	16.5	97	90	85	56	124	116	108	20.1	65	61	57	49
10.0	179	166	156	16.8	98	91	85	56	120	112	104	20.5	65	61	57	49

10.5 | 164 | 153 | 143 | 17.5 | 99 | 92 | 86 | 57 | 110 | 102 | 96 | 21.4 | 66 | 62 | 58 | 49

Table 103: Stocking levels for ponderosa pine in the PSME/SYOR plant association
(full stocking = 361).

QMD	UPPER MANAGEMENT ZONE (SDI = 180)								LOWER MANAGEMENT ZONE (SDI = 120)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	151	141	132	18.2	100	93	87	57	101	94	88	22.3	67	62	58	49
11.5	140	130	122	19.0	101	94	88	57	94	87	82	23.2	68	63	59	49
12.0	130	121	113	19.7	102	95	89	57	87	81	76	24.1	68	63	59	50
12.5	121	112	105	20.4	103	96	89	57	81	75	70	25.0	69	64	60	50
13.0	113	105	98	21.1	104	96	90	57	75	70	66	25.8	69	65	60	50
13.5	105	98	92	21.9	105	97	91	58	71	66	61	26.7	70	65	61	50
14.0	99	92	86	22.6	105	98	92	58	66	61	58	27.6	71	66	62	50
14.5	93	86	81	23.3	106	99	93	58	62	58	54	28.5	71	66	62	50
15.0	87	81	76	24.0	107	100	93	58	59	54	51	29.3	72	67	63	51
15.5	82	77	72	24.7	108	100	94	58	55	51	48	30.2	72	67	63	51
16.0	78	72	68	25.4	109	101	95	58	52	49	45	31.0	73	68	63	51
16.5	74	69	64	26.1	110	102	95	58	49	46	43	31.9	73	68	64	51
17.0	70	65	61	26.8	110	103	96	59	47	44	41	32.8	74	69	64	51
17.5	66	62	58	27.5	111	103	97	59	45	41	39	33.6	74	69	65	51
18.0	63	59	55	28.2	112	104	97	59	42	39	37	34.5	75	70	65	51
18.5	60	56	52	28.9	112	105	98	59	40	38	35	35.3	75	70	66	51
19.0	57	53	50	29.6	113	105	99	59	39	36	34	36.1	76	71	66	52
19.5	55	51	48	30.3	114	106	99	59	37	34	32	37.0	76	71	66	52
20.0	52	49	46	31.0	115	106	100	59	35	33	31	37.8	77	71	67	52
20.5	50	47	44	31.6	115	107	100	59	34	31	29	38.7	77	72	67	52
21.0	48	45	42	32.3	116	108	101	59	32	30	28	39.5	78	72	68	52
21.5	46	43	40	33.0	116	108	101	60	31	29	27	40.3	78	73	68	52
22.0	44	41	39	33.7	117	109	102	60	30	28	26	41.1	78	73	68	52
22.5	43	40	37	34.4	118	109	102	60	29	27	25	42.0	79	73	69	52
23.0	41	38	36	35.0	118	110	103	60	27	26	24	42.8	79	74	69	52
23.5	39	37	34	35.7	119	111	103	60	26	25	23	43.6	80	74	69	53
24.0	38	35	33	36.4	119	111	104	60	25	24	22	44.4	80	74	70	53
24.5	37	34	32	37.0	120	112	104	60	25	23	21	45.3	80	75	70	53
25.0	35	33	31	37.7	121	112	105	60	24	22	21	46.1	81	75	70	53
25.5	34	32	30	38.4	121	113	105	60	23	21	20	46.9	81	75	71	53
26.0	33	31	29	39.0	122	113	106	60	22	21	19	47.7	81	76	71	53
26.5	32	30	28	39.7	122	114	106	60	21	20	19	48.5	82	76	71	53
27.0	31	29	27	40.4	123	114	107	61	21	19	18	49.3	82	76	72	53
27.5	30	28	26	41.0	123	115	107	61	20	19	17	50.1	83	77	72	53
28.0	29	27	25	41.7	124	115	108	61	19	18	17	50.9	83	77	72	53
28.5	28	26	24	42.4	124	116	108	61	19	17	16	51.7	83	77	72	53
29.0	27	25	24	43.0	125	116	109	61	18	17	16	52.5	84	78	73	53
30.0	26	24	22	44.3	126	117	109	61	17	16	15	54.1	84	78	73	54

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 104: Stocking levels for ponderosa pine in the PSME/VAME plant association
(full stocking = 193).

QMD	UPPER MANAGEMENT ZONE (SDI = 96)								LOWER MANAGEMENT ZONE (SDI = 64)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	5622	5229	4895	3.0	31	29	27	35	3767	3503	3279	3.7	21	19	18	28
1.2	4072	3787	3545	3.5	32	30	28	36	2728	2537	2375	4.3	21	20	19	29
1.4	3099	2882	2698	4.0	33	31	29	36	2077	1931	1808	4.9	22	21	19	29
1.6	2447	2276	2130	4.5	34	32	30	37	1639	1525	1427	5.5	23	21	20	30
1.8	1986	1847	1729	5.0	35	33	31	37	1331	1238	1159	6.1	24	22	20	30
2.0	1649	1533	1435	5.5	36	33	31	38	1104	1027	962	6.7	24	22	21	31
2.2	1393	1295	1212	6.0	37	34	32	38	933	868	812	7.3	25	23	21	31
2.4	1194	1110	1039	6.5	38	35	33	39	800	744	696	7.9	25	23	22	31
2.6	1036	964	902	7.0	38	36	33	39	694	646	604	8.5	26	24	22	32
2.8	909	845	791	7.4	39	36	34	39	609	566	530	9.1	26	24	23	32
3.0	804	748	700	7.9	39	37	34	40	539	501	469	9.7	26	25	23	32
3.2	717	667	625	8.4	40	37	35	40	481	447	418	10.2	27	25	23	33
3.4	644	599	561	8.8	41	38	35	40	432	402	376	10.8	27	25	24	33
3.6	582	542	507	9.3	41	38	36	40	390	363	340	11.4	28	26	24	33
3.8	529	492	461	9.7	42	39	36	41	355	330	309	11.9	28	26	24	33
4.0	483	450	421	10.2	42	39	37	41	324	301	282	12.5	28	26	25	34
4.2	443	412	386	10.7	43	40	37	41	297	276	259	13.0	29	27	25	34
4.4	408	380	355	11.1	43	40	38	41	274	254	238	13.6	29	27	25	34
4.6	377	351	329	11.5	44	41	38	41	253	235	220	14.1	29	27	25	34
4.8	350	326	305	12.0	44	41	38	42	235	218	204	14.6	29	27	26	34
5.0	326	303	284	12.4	44	41	39	42	218	203	190	15.2	30	28	26	34
5.2	304	283	264	12.9	45	42	39	42	204	189	177	15.7	30	28	26	35
5.4	284	264	247	13.3	45	42	39	42	190	177	166	16.3	30	28	26	35
5.6	266	248	232	13.7	46	42	40	42	179	166	155	16.8	31	28	27	35
5.8	250	233	218	14.2	46	43	40	42	168	156	146	17.3	31	29	27	35
6.0	236	219	205	14.6	46	43	40	43	158	147	138	17.8	31	29	27	35
6.2	223	207	194	15.0	47	43	41	43	149	139	130	18.4	31	29	27	35
6.4	210	196	183	15.5	47	44	41	43	141	131	123	18.9	31	29	27	35
6.6	199	185	173	15.9	47	44	41	43	133	124	116	19.4	32	29	28	36
6.8	189	176	165	16.3	48	44	41	43	127	118	110	19.9	32	30	28	36
7.0	180	167	156	16.7	48	45	42	43	120	112	105	20.5	32	30	28	36
7.2	171	159	149	17.2	48	45	42	43	114	106	100	21.0	32	30	28	36
7.4	163	151	142	17.6	49	45	42	43	109	101	95	21.5	33	30	28	36
7.6	155	144	135	18.0	49	45	43	44	104	97	91	22.0	33	30	29	36
7.8	148	138	129	18.4	49	46	43	44	99	92	86	22.5	33	31	29	36
8.0	142	132	123	18.8	49	46	43	44	95	88	83	23.0	33	31	29	36
8.2	136	126	118	19.3	50	46	43	44	91	85	79	23.5	33	31	29	37
8.4	130	121	113	19.7	50	47	44	44	87	81	76	24.0	34	31	29	37
8.6	125	116	109	20.1	50	47	44	44	84	78	73	24.5	34	31	29	37
8.8	120	111	104	20.5	51	47	44	44	80	75	70	25.0	34	32	29	37
9.0	115	107	100	20.9	51	47	44	44	77	72	67	25.5	34	32	30	37
9.2	111	103	96	21.3	51	48	44	44	74	69	65	26.0	34	32	30	37
9.4	107	99	93	21.7	51	48	45	44	71	66	62	26.5	34	32	30	37
9.6	103	95	89	22.1	52	48	45	45	69	64	60	27.0	35	32	30	37
9.8	99	92	86	22.5	52	48	45	45	66	62	58	27.5	35	32	30	37
10.0	95	89	83	23.0	52	48	45	45	64	59	56	28.0	35	32	30	37
10.5	88	81	76	24.0	53	49	46	45	59	55	51	29.3	35	33	31	38

Table 104: Stocking levels for ponderosa pine in the PSME/VAME plant association
(full stocking = 193).

QMD	UPPER MANAGEMENT ZONE (SDI = 96)								LOWER MANAGEMENT ZONE (SDI = 64)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	81	75	70	25.0	53	50	46	45	54	50	47	30.5	36	33	31	38
11.5	75	69	65	26.0	54	50	47	45	50	46	43	31.7	36	34	31	38
12.0	69	64	60	27.0	54	51	47	45	46	43	40	33.0	36	34	32	38
12.5	64	60	56	28.0	55	51	48	46	43	40	38	34.2	37	34	32	38
13.0	60	56	52	29.0	55	51	48	46	40	37	35	35.4	37	34	32	38
13.5	56	52	49	29.9	56	52	49	46	38	35	33	36.6	37	35	33	39
14.0	53	49	46	30.9	56	52	49	46	35	33	31	37.8	38	35	33	39
14.5	49	46	43	31.9	57	53	49	46	33	31	29	39.0	38	35	33	39
15.0	47	43	41	32.9	57	53	50	46	31	29	27	40.1	38	36	33	39
15.5	44	41	38	33.8	58	54	50	47	29	27	26	41.3	39	36	34	39
16.0	42	39	36	34.8	58	54	51	47	28	26	24	42.5	39	36	34	39
16.5	39	37	34	35.8	58	54	51	47	26	25	23	43.7	39	36	34	39
17.0	37	35	32	36.7	59	55	51	47	25	23	22	44.8	39	37	34	40
17.5	35	33	31	37.7	59	55	52	47	24	22	21	46.0	40	37	35	40
18.0	34	31	29	38.6	60	55	52	47	23	21	20	47.2	40	37	35	40
18.5	32	30	28	39.6	60	56	52	47	22	20	19	48.3	40	37	35	40
19.0	31	29	27	40.5	60	56	53	47	21	19	18	49.5	40	38	35	40
19.5	29	27	25	41.4	61	56	53	48	20	18	17	50.6	41	38	35	40
20.0	28	26	24	42.4	61	57	53	48	19	17	16	51.8	41	38	36	40
20.5	27	25	23	43.3	61	57	53	48	18	17	16	52.9	41	38	36	40
21.0	26	24	22	44.3	62	57	54	48	17	16	15	54.1	41	38	36	40
21.5	25	23	21	45.2	62	58	54	48	17	15	14	55.2	42	39	36	41
22.0	24	22	21	46.1	62	58	54	48	16	15	14	56.3	42	39	36	41
22.5	23	21	20	47.0	63	58	55	48	15	14	13	57.5	42	39	37	41
23.0	22	20	19	48.0	63	59	55	48	15	14	13	58.6	42	39	37	41
23.5	21	20	18	48.9	63	59	55	48	14	13	12	59.7	42	39	37	41
24.0	20	19	18	49.8	64	59	55	48	14	13	12	60.9	43	40	37	41
24.5	20	18	17	50.7	64	60	56	48	13	12	11	62.0	43	40	37	41
25.0	19	18	16	51.6	64	60	56	49	13	12	11	63.1	43	40	38	41
25.5	18	17	16	52.6	65	60	56	49	12	11	11	64.2	43	40	38	41
26.0	18	16	15	53.5	65	60	56	49	12	11	10	65.3	43	40	38	41
26.5	17	16	15	54.4	65	61	57	49	11	11	10	66.4	44	41	38	41
27.0	16	15	14	55.3	65	61	57	49	11	10	10	67.5	44	41	38	42
27.5	16	15	14	56.2	66	61	57	49	11	10	9	68.6	44	41	38	42
28.0	15	14	13	57.1	66	61	57	49	10	10	9	69.7	44	41	38	42
28.5	15	14	13	58.0	66	62	58	49	10	9	9	70.8	44	41	39	42
29.0	15	13	13	58.9	67	62	58	49	10	9	8	71.9	45	41	39	42
30.0	14	13	12	60.7	67	62	58	49	9	9	8	74.1	45	42	39	42

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 105: Stocking levels for Douglas-fir in the PSME/VAME plant association (full stocking = 183).

QMD	UPPER MANAGEMENT ZONE (SDI = 137)								LOWER MANAGEMENT ZONE (SDI = 92)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	4455	4194	3878	3.4	24	23	21	50	2970	2796	2585	4.1	16	15	14	44
1.2	3383	3185	2945	3.9	27	25	23	52	2255	2123	1963	4.7	18	17	15	45
1.4	2680	2523	2333	4.3	29	27	25	53	1787	1682	1556	5.3	19	18	17	46
1.6	2191	2063	1907	4.8	31	29	27	54	1460	1375	1271	5.9	20	19	18	47
1.8	1834	1726	1596	5.2	32	31	28	55	1223	1151	1064	6.4	22	20	19	48
2.0	1564	1473	1362	5.7	34	32	30	55	1043	982	908	6.9	23	21	20	49
2.2	1354	1275	1179	6.1	36	34	31	56	903	850	786	7.5	24	22	21	50
2.4	1188	1118	1034	6.5	37	35	32	57	792	745	689	8.0	25	23	22	51
2.6	1052	991	916	6.9	39	37	34	58	702	661	611	8.5	26	24	23	51
2.8	941	886	819	7.3	40	38	35	58	627	591	546	9.0	27	25	23	52
3.0	848	798	738	7.7	42	39	36	59	565	532	492	9.4	28	26	24	52
3.2	769	724	670	8.1	43	40	37	59	513	483	446	9.9	29	27	25	53
3.4	702	661	611	8.5	44	42	39	60	468	441	407	10.4	30	28	26	53
3.6	644	606	561	8.8	46	43	40	60	429	404	374	10.8	30	29	26	54
3.8	593	559	517	9.2	47	44	41	60	396	372	344	11.3	31	29	27	54
4.0	549	517	478	9.6	48	45	42	61	366	345	319	11.7	32	30	28	54
4.2	510	480	444	9.9	49	46	43	61	340	320	296	12.2	33	31	28	55
4.4	476	448	414	10.3	50	47	44	62	317	298	276	12.6	33	32	29	55
4.6	445	419	387	10.6	51	48	45	62	296	279	258	13.0	34	32	30	56
4.8	417	393	363	11.0	52	49	46	62	278	262	242	13.5	35	33	30	56
5.0	392	369	341	11.3	53	50	47	63	261	246	228	13.9	36	34	31	56
5.2	370	348	322	11.7	54	51	47	63	246	232	214	14.3	36	34	32	56
5.4	349	329	304	12.0	56	52	48	63	233	219	203	14.7	37	35	32	57
5.6	330	311	288	12.3	57	53	49	63	220	207	192	15.1	38	35	33	57
5.8	313	295	273	12.7	57	54	50	64	209	197	182	15.5	38	36	33	57
6.0	298	280	259	13.0	58	55	51	64	198	187	173	15.9	39	37	34	58
6.2	283	267	247	13.3	59	56	52	64	189	178	164	16.3	40	37	34	58
6.4	270	254	235	13.6	60	57	53	65	180	170	157	16.7	40	38	35	58
6.6	258	243	224	14.0	61	58	53	65	172	162	150	17.1	41	38	36	58
6.8	246	232	215	14.3	62	59	54	65	164	155	143	17.5	41	39	36	59
7.0	236	222	205	14.6	63	59	55	65	157	148	137	17.9	42	40	37	59
7.2	226	213	197	14.9	64	60	56	65	151	142	131	18.3	43	40	37	59
7.4	217	204	189	15.2	65	61	56	66	145	136	126	18.7	43	41	38	59
7.6	208	196	181	15.5	66	62	57	66	139	131	121	19.0	44	41	38	59
7.8	200	189	174	15.8	66	63	58	66	134	126	116	19.4	44	42	39	60
8.0	193	182	168	16.2	67	63	59	66	129	121	112	19.8	45	42	39	60
8.2	186	175	162	16.5	68	64	59	66	124	117	108	20.2	45	43	40	60
8.4	179	169	156	16.8	69	65	60	67	119	112	104	20.5	46	43	40	60
8.6	173	163	150	17.1	70	66	61	67	115	109	100	20.9	46	44	40	60
8.8	167	157	145	17.4	71	66	61	67	111	105	97	21.3	47	44	41	61
9.0	161	152	141	17.7	71	67	62	67	108	101	94	21.6	48	45	41	61
9.2	156	147	136	17.9	72	68	63	67	104	98	91	22.0	48	45	42	61
9.4	151	142	132	18.2	73	69	63	68	101	95	88	22.3	49	46	42	61
9.6	146	138	127	18.5	74	69	64	68	98	92	85	22.7	49	46	43	61
9.8	142	134	124	18.8	74	70	65	68	95	89	82	23.1	50	47	43	61
10.0	138	130	120	19.1	75	71	65	68	92	86	80	23.4	50	47	44	62
10.5	128	120	111	19.8	77	72	67	68	85	80	74	24.3	51	48	45	62

Table 105: Stocking levels for Douglas-fir in the PSME/VAME plant association (full stocking = 183).

QMD	UPPER MANAGEMENT ZONE (SDI = 137)								LOWER MANAGEMENT ZONE (SDI = 92)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	119	112	104	20.5	79	74	68	69	79	75	69	25.2	52	49	46	62
11.5	111	105	97	21.2	80	76	70	69	74	70	65	26.0	54	50	47	63
12.0	105	98	91	21.9	82	77	71	69	70	66	61	26.9	55	52	48	63
12.5	98	93	86	22.6	84	79	73	70	66	62	57	27.7	56	53	49	63
13.0	93	87	81	23.3	85	80	74	70	62	58	54	28.5	57	54	50	64
13.5	87	82	76	24.0	87	82	76	70	58	55	51	29.4	58	55	50	64
14.0	83	78	72	24.6	89	83	77	71	55	52	48	30.2	59	56	51	64
14.5	79	74	68	25.3	90	85	78	71	52	49	46	31.0	60	57	52	64
15.0	75	70	65	26.0	92	86	80	71	50	47	43	31.8	61	57	53	65
15.5	71	67	62	26.6	93	88	81	71	47	45	41	32.6	62	58	54	65
16.0	68	64	59	27.3	95	89	82	72	45	42	39	33.4	63	59	55	65
16.5	65	61	56	27.9	96	90	84	72	43	41	38	34.2	64	60	56	65
17.0	62	58	54	28.5	97	92	85	72	41	39	36	34.9	65	61	57	66
17.5	59	56	51	29.2	99	93	86	72	39	37	34	35.7	66	62	57	66
18.0	57	53	49	29.8	100	94	87	73	38	36	33	36.5	67	63	58	66
18.5	54	51	47	30.4	101	96	88	73	36	34	32	37.3	68	64	59	66
19.0	52	49	45	31.0	103	97	90	73	35	33	30	38.0	69	65	60	67
19.5	50	47	44	31.6	104	98	91	73	33	32	29	38.8	69	65	60	67
20.0	48	46	42	32.3	105	99	92	73	32	30	28	39.5	70	66	61	67
20.5	47	44	41	32.9	107	100	93	74	31	29	27	40.3	71	67	62	67
21.0	45	42	39	33.5	108	102	94	74	30	28	26	41.0	72	68	63	67
21.5	43	41	38	34.1	109	103	95	74	29	27	25	41.7	73	69	63	68
22.0	42	39	36	34.7	110	104	96	74	28	26	24	42.5	74	69	64	68
22.5	40	38	35	35.3	112	105	97	74	27	25	23	43.2	74	70	65	68
23.0	39	37	34	35.8	113	106	98	75	26	25	23	43.9	75	71	66	68
23.5	38	36	33	36.4	114	107	99	75	25	24	22	44.6	76	72	66	68
24.0	37	35	32	37.0	115	109	100	75	24	23	21	45.3	77	72	67	68
24.5	36	33	31	37.6	116	110	101	75	24	22	21	46.1	78	73	68	69
25.0	35	32	30	38.2	118	111	102	75	23	22	20	46.8	78	74	68	69
25.5	33	32	29	38.8	119	112	103	75	22	21	19	47.5	79	75	69	69
26.0	33	31	28	39.3	120	113	104	75	22	20	19	48.2	80	75	70	69
26.5	32	30	28	39.9	121	114	105	76	21	20	18	48.9	81	76	70	69
27.0	31	29	27	40.5	122	115	106	76	20	19	18	49.6	81	77	71	69
27.5	30	28	26	41.0	123	116	107	76	20	19	17	50.2	82	77	72	69
28.0	29	27	25	41.6	124	117	108	76	19	18	17	50.9	83	78	72	70
28.5	28	27	25	42.1	125	118	109	76	19	18	16	51.6	84	79	73	70
29.0	28	26	24	42.7	127	119	110	76	18	17	16	52.3	84	79	73	70
30.0	26	25	23	43.8	129	121	112	77	17	16	15	53.7	86	81	75	70

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 106: Stocking levels for ponderosa pine in the PSME/CARU plant association
(full stocking = 263).

QMD	UPPER MANAGEMENT ZONE (SDI = 122)								LOWER MANAGEMENT ZONE (SDI = 82)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	7143	6643	6219	2.7	39	36	34	39	4786	4451	4167	3.2	26	24	23	32
1.2	5173	4811	4503	3.1	41	38	35	40	3466	3223	3017	3.8	27	25	24	33
1.4	3938	3662	3428	3.6	42	39	37	41	2638	2454	2297	4.4	28	26	25	33
1.6	3109	2891	2706	4.0	43	40	38	41	2083	1937	1813	4.9	29	27	25	34
1.8	2524	2347	2197	4.5	45	41	39	42	1691	1573	1472	5.5	30	28	26	35
2.0	2094	1948	1823	4.9	46	42	40	42	1403	1305	1222	6.0	31	28	27	35
2.2	1769	1645	1540	5.3	47	43	41	43	1185	1102	1032	6.5	31	29	27	35
2.4	1517	1411	1320	5.8	48	44	41	43	1016	945	885	7.0	32	30	28	36
2.6	1316	1224	1146	6.2	49	45	42	43	882	820	768	7.6	33	30	28	36
2.8	1155	1074	1005	6.6	49	46	43	44	774	719	673	8.1	33	31	29	36
3.0	1022	950	890	7.0	50	47	44	44	685	637	596	8.6	34	31	29	37
3.2	912	848	794	7.4	51	47	44	44	611	568	532	9.1	34	32	30	37
3.4	819	761	713	7.8	52	48	45	45	549	510	478	9.6	35	32	30	37
3.6	740	688	644	8.2	52	49	46	45	496	461	432	10.1	35	33	31	37
3.8	672	625	585	8.6	53	49	46	45	451	419	392	10.6	35	33	31	38
4.0	614	571	535	9.1	54	50	47	45	411	383	358	11.1	36	33	31	38
4.2	563	524	490	9.4	54	50	47	45	377	351	329	11.5	36	34	32	38
4.4	519	482	452	9.8	55	51	48	46	348	323	303	12.0	37	34	32	38
4.6	480	446	417	10.2	55	51	48	46	321	299	280	12.5	37	34	32	38
4.8	445	414	387	10.6	56	52	49	46	298	277	259	13.0	37	35	33	39
5.0	414	385	360	11.0	56	52	49	46	277	258	241	13.5	38	35	33	39
5.2	386	359	336	11.4	57	53	50	46	259	240	225	13.9	38	35	33	39
5.4	361	336	314	11.8	57	53	50	46	242	225	211	14.4	38	36	33	39
5.6	339	315	295	12.2	58	54	50	47	227	211	197	14.9	39	36	34	39
5.8	318	296	277	12.6	58	54	51	47	213	198	186	15.4	39	36	34	39
6.0	300	279	261	13.0	59	55	51	47	201	187	175	15.8	39	37	34	40
6.2	283	263	246	13.3	59	55	52	47	189	176	165	16.3	40	37	35	40
6.4	267	249	233	13.7	60	56	52	47	179	167	156	16.8	40	37	35	40
6.6	253	235	220	14.1	60	56	52	47	170	158	148	17.2	40	37	35	40
6.8	240	223	209	14.5	61	56	53	47	161	150	140	17.7	41	38	35	40
7.0	228	212	199	14.9	61	57	53	48	153	142	133	18.1	41	38	36	40
7.2	217	202	189	15.2	61	57	53	48	145	135	127	18.6	41	38	36	40
7.4	207	192	180	15.6	62	57	54	48	138	129	121	19.1	41	38	36	40
7.6	197	183	172	16.0	62	58	54	48	132	123	115	19.5	42	39	36	41
7.8	188	175	164	16.3	62	58	54	48	126	117	110	20.0	42	39	36	41
8.0	180	167	157	16.7	63	58	55	48	121	112	105	20.4	42	39	37	41
8.2	172	160	150	17.1	63	59	55	48	115	107	101	20.9	42	39	37	41
8.4	165	154	144	17.5	64	59	55	48	111	103	96	21.3	43	40	37	41
8.6	158	147	138	17.8	64	59	56	48	106	99	92	21.8	43	40	37	41
8.8	152	141	132	18.2	64	60	56	49	102	95	89	22.2	43	40	37	41
9.0	146	136	127	18.6	65	60	56	49	98	91	85	22.7	43	40	38	41
9.2	141	131	122	18.9	65	60	57	49	94	88	82	23.1	43	40	38	41
9.4	135	126	118	19.3	65	61	57	49	91	84	79	23.6	44	41	38	41
9.6	130	121	114	19.6	66	61	57	49	87	81	76	24.0	44	41	38	42
9.8	126	117	109	20.0	66	61	57	49	84	78	73	24.4	44	41	38	42
10.0	121	113	106	20.4	66	62	58	49	81	76	71	24.9	44	41	39	42
10.5	111	103	97	21.3	67	62	58	49	75	69	65	26.0	45	42	39	42

Table 106: Stocking levels for ponderosa pine in the PSME/CARU plant association
(full stocking = 263).

QMD	UPPER MANAGEMENT ZONE (SDI = 122)								LOWER MANAGEMENT ZONE (SDI = 82)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	102	95	89	22.2	68	63	59	49	69	64	60	27.1	45	42	39	42
11.5	95	88	82	23.0	68	64	59	50	63	59	55	28.2	46	43	40	42
12.0	88	82	76	23.9	69	64	60	50	59	55	51	29.2	46	43	40	42
12.5	82	76	71	24.8	70	65	61	50	55	51	48	30.3	47	43	41	43
13.0	76	71	66	25.7	70	65	61	50	51	48	44	31.4	47	44	41	43
13.5	71	66	62	26.6	71	66	62	50	48	44	42	32.4	47	44	41	43
14.0	67	62	58	27.4	71	66	62	51	45	42	39	33.5	48	45	42	43
14.5	63	58	55	28.3	72	67	63	51	42	39	37	34.6	48	45	42	43
15.0	59	55	52	29.2	73	68	63	51	40	37	35	35.6	49	45	42	43
15.5	56	52	49	30.0	73	68	64	51	37	35	33	36.7	49	46	43	44
16.0	53	49	46	30.9	74	69	64	51	35	33	31	37.7	49	46	43	44
16.5	50	46	44	31.7	74	69	65	51	33	31	29	38.8	50	46	43	44
17.0	47	44	41	32.6	75	70	65	51	32	30	28	39.8	50	47	44	44
17.5	45	42	39	33.4	75	70	66	51	30	28	26	40.8	50	47	44	44
18.0	43	40	37	34.3	76	70	66	52	29	27	25	41.9	51	47	44	44
18.5	41	38	36	35.1	76	71	66	52	27	25	24	42.9	51	47	44	44
19.0	39	36	34	35.9	77	71	67	52	26	24	23	43.9	51	48	45	44
19.5	37	35	32	36.8	77	72	67	52	25	23	22	44.9	52	48	45	45
20.0	36	33	31	37.6	78	72	68	52	24	22	21	45.9	52	48	45	45
20.5	34	32	30	38.4	78	73	68	52	23	21	20	47.0	52	49	46	45
21.0	33	30	28	39.3	78	73	68	52	22	20	19	48.0	53	49	46	45
21.5	31	29	27	40.1	79	73	69	52	21	19	18	49.0	53	49	46	45
22.0	30	28	26	40.9	79	74	69	52	20	19	18	50.0	53	49	46	45
22.5	29	27	25	41.7	80	74	69	53	19	18	17	51.0	53	50	47	45
23.0	28	26	24	42.6	80	75	70	53	19	17	16	52.0	54	50	47	45
23.5	27	25	23	43.4	81	75	70	53	18	17	16	53.0	54	50	47	45
24.0	26	24	22	44.2	81	75	70	53	17	16	15	54.0	54	50	47	45
24.5	25	23	22	45.0	81	76	71	53	17	15	14	55.0	54	51	47	46
25.0	24	22	21	45.8	82	76	71	53	16	15	14	56.0	55	51	48	46
25.5	23	22	20	46.6	82	76	71	53	16	14	13	57.0	55	51	48	46
26.0	22	21	19	47.4	82	77	72	53	15	14	13	58.0	55	51	48	46
26.5	22	20	19	48.2	83	77	72	53	14	13	13	58.9	55	52	48	46
27.0	21	19	18	49.0	83	77	72	53	14	13	12	59.9	56	52	48	46
27.5	20	19	18	49.8	83	78	73	53	14	13	12	60.9	56	52	49	46
28.0	20	18	17	50.7	84	78	73	53	13	12	11	61.9	56	52	49	46
28.5	19	18	17	51.4	84	78	73	54	13	12	11	62.9	56	52	49	46
29.0	18	17	16	52.2	85	79	74	54	12	11	11	63.8	57	53	49	46
30.0	17	16	15	53.8	85	79	74	54	12	11	10	65.8	57	53	50	46

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 107: Stocking levels for Douglas-fir in the PSME/CARU plant association (full stocking = 264).

QMD	UPPER MANAGEMENT ZONE (SDI = 198)								LOWER MANAGEMENT ZONE (SDI = 132)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	6426	6050	5594	2.8	35	33	31	56	4284	4033	3729	3.4	23	22	20	50
1.2	4879	4594	4248	3.2	38	36	33	57	3253	3063	2832	3.9	26	24	22	51
1.4	3866	3640	3366	3.6	41	39	36	58	2577	2427	2244	4.4	28	26	24	52
1.6	3160	2975	2751	4.0	44	42	38	60	2107	1983	1834	4.9	29	28	26	53
1.8	2645	2490	2303	4.4	47	44	41	60	1763	1660	1535	5.3	31	29	27	54
2.0	2256	2124	1964	4.7	49	46	43	61	1504	1416	1309	5.8	33	31	29	55
2.2	1954	1839	1701	5.1	52	49	45	62	1302	1226	1134	6.2	34	32	30	56
2.4	1713	1613	1491	5.4	54	51	47	63	1142	1075	994	6.6	36	34	31	56
2.6	1518	1429	1322	5.8	56	53	49	63	1012	953	881	7.0	37	35	32	57
2.8	1357	1278	1182	6.1	58	55	51	64	905	852	788	7.5	39	36	34	57
3.0	1223	1152	1065	6.4	60	57	52	64	815	768	710	7.9	40	38	35	58
3.2	1110	1045	966	6.7	62	58	54	65	740	696	644	8.2	41	39	36	58
3.4	1012	953	881	7.0	64	60	56	65	675	635	588	8.6	43	40	37	59
3.6	929	874	809	7.4	66	62	57	66	619	583	539	9.0	44	41	38	59
3.8	856	806	745	7.7	67	63	59	66	571	537	497	9.4	45	42	39	60
4.0	792	746	690	8.0	69	65	60	67	528	497	460	9.8	46	43	40	60
4.2	736	693	641	8.3	71	67	62	67	491	462	427	10.1	47	44	41	61
4.4	686	646	597	8.6	72	68	63	67	457	431	398	10.5	48	45	42	61
4.6	641	604	558	8.9	74	70	64	68	428	403	372	10.8	49	46	43	61
4.8	602	566	524	9.1	76	71	66	68	401	378	349	11.2	50	47	44	62
5.0	566	532	492	9.4	77	73	67	68	377	355	328	11.6	51	48	45	62
5.2	533	502	464	9.7	79	74	68	69	355	335	309	11.9	52	49	46	62
5.4	503	474	438	10.0	80	75	70	69	336	316	292	12.2	53	50	46	63
5.6	477	449	415	10.3	82	77	71	69	318	299	277	12.6	54	51	47	63
5.8	452	426	394	10.5	83	78	72	70	301	284	262	12.9	55	52	48	63
6.0	429	404	374	10.8	84	79	73	70	286	270	249	13.3	56	53	49	63
6.2	409	385	356	11.1	86	81	75	70	272	257	237	13.6	57	54	50	64
6.4	390	367	339	11.4	87	82	76	70	260	245	226	13.9	58	55	51	64
6.6	372	350	324	11.6	88	83	77	71	248	233	216	14.2	59	55	51	64
6.8	355	335	309	11.9	90	84	78	71	237	223	206	14.6	60	56	52	64
7.0	340	320	296	12.2	91	86	79	71	227	214	197	14.9	61	57	53	65
7.2	326	307	284	12.4	92	87	80	71	217	205	189	15.2	61	58	54	65
7.4	313	295	272	12.7	93	88	81	71	209	196	182	15.5	62	59	54	65
7.6	301	283	262	12.9	95	89	82	72	200	189	174	15.8	63	59	55	65
7.8	289	272	252	13.2	96	90	83	72	193	181	168	16.2	64	60	56	65
8.0	278	262	242	13.4	97	91	85	72	185	175	161	16.5	65	61	56	66
8.2	268	252	233	13.7	98	93	86	72	179	168	156	16.8	66	62	57	66
8.4	258	243	225	14.0	99	94	87	72	172	162	150	17.1	66	62	58	66
8.6	249	235	217	14.2	101	95	88	73	166	157	145	17.4	67	63	58	66
8.8	241	227	210	14.5	102	96	89	73	161	151	140	17.7	68	64	59	66
9.0	233	219	203	14.7	103	97	90	73	155	146	135	18.0	69	65	60	67
9.2	225	212	196	14.9	104	98	91	73	150	141	131	18.3	69	65	60	67
9.4	218	205	190	15.2	105	99	91	73	145	137	127	18.6	70	66	61	67
9.6	211	199	184	15.4	106	100	92	74	141	133	123	18.9	71	67	62	67
9.8	205	193	178	15.7	107	101	93	74	136	128	119	19.2	71	67	62	67
10.0	199	187	173	15.9	108	102	94	74	132	125	115	19.5	72	68	63	67
10.5	184	174	161	16.5	111	104	97	74	123	116	107	20.2	74	70	64	68

Table 107: Stocking levels for Douglas-fir in the PSME/CARU plant association (full stocking = 264).

QMD	UPPER MANAGEMENT ZONE (SDI = 198)								LOWER MANAGEMENT ZONE (SDI = 132)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	172	162	150	17.1	113	107	99	75	115	108	100	20.9	76	71	66	68
11.5	161	151	140	17.7	116	109	101	75	107	101	93	21.7	77	73	67	68
12.0	151	142	131	18.3	118	111	103	75	101	95	88	22.4	79	74	69	69
12.5	142	133	123	18.8	121	114	105	76	95	89	82	23.1	81	76	70	69
13.0	134	126	116	19.4	123	116	107	76	89	84	78	23.8	82	77	71	69
13.5	126	119	110	20.0	125	118	109	76	84	79	73	24.4	84	79	73	70
14.0	119	112	104	20.5	128	120	111	77	80	75	69	25.1	85	80	74	70
14.5	113	107	99	21.1	130	122	113	77	76	71	66	25.8	87	82	75	70
15.0	108	101	94	21.6	132	124	115	77	72	68	62	26.5	88	83	77	71
15.5	102	96	89	22.2	134	126	117	77	68	64	59	27.1	89	84	78	71
16.0	98	92	85	22.7	136	128	119	78	65	61	57	27.8	91	86	79	71
16.5	93	88	81	23.2	138	130	121	78	62	59	54	28.4	92	87	80	71
17.0	85	80	74	24.3	142	134	124	78	57	54	50	29.7	95	89	83	72
17.5	82	77	71	24.8	144	136	126	78	54	51	47	30.4	96	91	84	72
18.0	78	74	68	25.3	146	138	127	79	52	49	46	31.0	98	92	85	72
18.5	83	79	73	24.5	156	147	136	80	56	52	48	30.1	104	98	90	73
19.0	75	71	66	25.8	148	140	129	79	50	47	44	31.6	99	93	86	72
19.5	72	68	63	26.4	150	141	131	79	48	45	42	32.3	100	94	87	73
20.0	70	66	61	26.9	152	143	132	79	46	44	40	32.9	101	95	88	73
20.5	67	63	58	27.4	154	145	134	80	45	42	39	33.5	103	97	89	73
21.0	65	61	56	27.9	156	147	136	80	43	41	38	34.1	104	98	90	73
21.5	63	59	54	28.4	158	148	137	80	42	39	36	34.7	105	99	91	73
22.0	60	57	53	28.9	159	150	139	80	40	38	35	35.4	106	100	93	74
22.5	58	55	51	29.4	161	152	140	80	39	37	34	36.0	107	101	94	74
23.0	56	53	49	29.8	163	153	142	80	38	35	33	36.6	109	102	95	74
23.5	55	51	48	30.3	165	155	143	81	36	34	32	37.2	110	103	96	74
24.0	53	50	46	30.8	166	157	145	81	35	33	31	37.8	111	104	97	74
24.5	51	48	45	31.3	168	158	146	81	34	32	30	38.3	112	105	98	74
25.0	50	47	43	31.8	170	160	148	81	33	31	29	38.9	113	107	98	75
25.5	48	45	42	32.3	171	161	149	81	32	30	28	39.5	114	108	99	75
26.0	47	44	41	32.7	173	163	151	81	31	29	27	40.1	115	109	100	75
26.5	46	43	40	33.2	175	164	152	82	30	29	26	40.7	116	110	101	75
27.0	44	42	39	33.7	176	166	153	82	30	28	26	41.3	117	111	102	75
27.5	43	41	38	34.2	178	167	155	82	29	27	25	41.8	119	112	103	75
28.0	42	39	37	34.6	179	169	156	82	28	26	24	42.4	120	113	104	75
28.5	41	38	36	35.1	181	170	158	82	27	26	24	43.0	121	114	105	76
29.0	40	37	35	35.6	182	172	159	82	27	25	23	43.5	122	115	106	76
30.0	38	36	33	36.5	186	175	162	83	25	24	22	44.7	124	116	108	76

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 108: Stocking levels for ponderosa pine in the PSME/CAGE plant association
(full stocking = 222).

QMD	UPPER MANAGEMENT ZONE (SDI = 86)								LOWER MANAGEMENT ZONE (SDI = 58)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	5036	4684	4385	3.2	27	26	24	33	3374	3138	2938	3.9	18	17	16	26
1.2	3647	3392	3175	3.7	29	27	25	34	2444	2273	2127	4.5	19	18	17	27
1.4	2776	2582	2417	4.3	30	28	26	34	1860	1730	1619	5.2	20	18	17	27
1.6	2192	2039	1908	4.8	31	28	27	35	1469	1366	1279	5.9	21	19	18	28
1.8	1779	1655	1549	5.3	31	29	27	35	1192	1109	1038	6.5	21	20	18	28
2.0	1477	1373	1286	5.8	32	30	28	36	989	920	861	7.1	22	20	19	29
2.2	1247	1160	1086	6.3	33	31	29	36	836	777	728	7.8	22	21	19	29
2.4	1069	995	931	6.9	34	31	29	37	717	666	624	8.4	23	21	20	29
2.6	928	863	808	7.4	34	32	30	37	622	578	541	9.0	23	21	20	30
2.8	814	757	709	7.9	35	32	30	37	545	507	475	9.6	23	22	20	30
3.0	720	670	627	8.4	35	33	31	38	483	449	420	10.2	24	22	21	30
3.2	643	598	560	8.8	36	33	31	38	431	400	375	10.8	24	22	21	31
3.4	577	537	503	9.3	36	34	32	38	387	360	337	11.4	24	23	21	31
3.6	522	485	454	9.8	37	34	32	38	350	325	304	12.0	25	23	22	31
3.8	474	441	413	10.3	37	35	33	39	318	295	277	12.6	25	23	22	31
4.0	433	403	377	10.8	38	35	33	39	290	270	253	13.2	25	24	22	32
4.2	397	369	346	11.3	38	36	33	39	266	247	232	13.7	26	24	22	32
4.4	366	340	318	11.7	39	36	34	39	245	228	213	14.3	26	24	23	32
4.6	338	314	294	12.2	39	36	34	39	227	211	197	14.9	26	24	23	32
4.8	314	292	273	12.7	39	37	34	40	210	195	183	15.5	26	25	23	32
5.0	292	271	254	13.1	40	37	35	40	195	182	170	16.0	27	25	23	32
5.2	272	253	237	13.6	40	37	35	40	182	170	159	16.6	27	25	23	33
5.4	255	237	222	14.1	40	38	35	40	171	159	148	17.2	27	25	24	33
5.6	239	222	208	14.5	41	38	36	40	160	149	139	17.7	27	25	24	33
5.8	224	209	195	15.0	41	38	36	40	150	140	131	18.3	28	26	24	33
6.0	211	196	184	15.4	41	39	36	41	142	132	123	18.9	28	26	24	33
6.2	199	185	174	15.9	42	39	36	41	134	124	116	19.4	28	26	24	33
6.4	188	175	164	16.3	42	39	37	41	126	117	110	20.0	28	26	25	33
6.6	178	166	155	16.8	42	39	37	41	120	111	104	20.5	28	26	25	34
6.8	169	157	147	17.2	43	40	37	41	113	105	99	21.1	29	27	25	34
7.0	161	150	140	17.7	43	40	37	41	108	100	94	21.6	29	27	25	34
7.2	153	142	133	18.1	43	40	38	41	102	95	89	22.2	29	27	25	34
7.4	146	136	127	18.6	44	40	38	41	98	91	85	22.7	29	27	25	34
7.6	139	129	121	19.0	44	41	38	42	93	87	81	23.2	29	27	26	34
7.8	133	123	116	19.5	44	41	38	42	89	83	77	23.8	30	27	26	34
8.0	127	118	111	19.9	44	41	39	42	85	79	74	24.3	30	28	26	34
8.2	122	113	106	20.3	45	41	39	42	81	76	71	24.9	30	28	26	35
8.4	116	108	101	20.8	45	42	39	42	78	73	68	25.4	30	28	26	35
8.6	112	104	97	21.2	45	42	39	42	75	70	65	25.9	30	28	26	35
8.8	107	100	93	21.7	45	42	39	42	72	67	63	26.5	30	28	26	35
9.0	103	96	90	22.1	46	42	40	42	69	64	60	27.0	31	28	27	35
9.2	99	92	86	22.5	46	43	40	42	66	62	58	27.5	31	29	27	35
9.4	95	89	83	23.0	46	43	40	42	64	59	56	28.0	31	29	27	35
9.6	92	86	80	23.4	46	43	40	42	62	57	54	28.6	31	29	27	35
9.8	89	82	77	23.8	46	43	40	43	59	55	52	29.1	31	29	27	35
10.0	86	80	74	24.3	47	43	41	43	57	53	50	29.6	31	29	27	35
10.5	78	73	68	25.3	47	44	41	43	53	49	46	30.9	32	29	28	36

Table 108: Stocking levels for ponderosa pine in the PSME/CAGE plant association
(full stocking = 222).

QMD	UPPER MANAGEMENT ZONE (SDI = 86)								LOWER MANAGEMENT ZONE (SDI = 58)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	72	67	63	26.4	48	44	42	43	48	45	42	32.2	32	30	28	36
11.5	67	62	58	27.4	48	45	42	43	45	42	39	33.5	32	30	28	36
12.0	62	58	54	28.5	49	45	42	43	41	39	36	34.8	33	30	28	36
12.5	58	54	50	29.5	49	46	43	44	39	36	34	36.1	33	31	29	36
13.0	54	50	47	30.6	50	46	43	44	36	33	31	37.4	33	31	29	36
13.5	50	47	44	31.6	50	46	44	44	34	31	29	38.6	33	31	29	37
14.0	47	44	41	32.7	50	47	44	44	32	29	28	39.9	34	31	29	37
14.5	44	41	39	33.7	51	47	44	44	30	28	26	41.2	34	32	30	37
15.0	42	39	36	34.7	51	48	45	44	28	26	24	42.4	34	32	30	37
15.5	39	37	34	35.7	52	48	45	45	26	25	23	43.7	35	32	30	37
16.0	37	35	32	36.8	52	48	45	45	25	23	22	44.9	35	32	30	37
16.5	35	33	31	37.8	52	49	46	45	24	22	21	46.1	35	33	31	37
17.0	33	31	29	38.8	53	49	46	45	22	21	20	47.4	35	33	31	38
17.5	32	30	28	39.8	53	49	46	45	21	20	19	48.6	36	33	31	38
18.0	30	28	26	40.8	53	50	46	45	20	19	18	49.8	36	33	31	38
18.5	29	27	25	41.8	54	50	47	45	19	18	17	51.1	36	33	31	38
19.0	27	26	24	42.8	54	50	47	45	18	17	16	52.3	36	34	32	38
19.5	26	24	23	43.8	54	51	47	45	18	16	15	53.5	36	34	32	38
20.0	25	23	22	44.8	55	51	48	46	17	16	15	54.7	37	34	32	38
20.5	24	22	21	45.8	55	51	48	46	16	15	14	55.9	37	34	32	38
21.0	23	21	20	46.8	55	51	48	46	15	14	13	57.1	37	34	32	38
21.5	22	21	19	47.7	56	52	48	46	15	14	13	58.3	37	35	32	39
22.0	21	20	18	48.7	56	52	49	46	14	13	12	59.5	37	35	33	39
22.5	20	19	18	49.7	56	52	49	46	14	13	12	60.7	38	35	33	39
23.0	20	18	17	50.7	56	53	49	46	13	12	11	61.9	38	35	33	39
23.5	19	18	16	51.7	57	53	49	46	13	12	11	63.1	38	35	33	39
24.0	18	17	16	52.6	57	53	50	46	12	11	11	64.3	38	36	33	39
24.5	18	16	15	53.6	57	53	50	46	12	11	10	65.5	38	36	33	39
25.0	17	16	15	54.6	58	54	50	47	11	11	10	66.7	39	36	34	39
25.5	16	15	14	55.5	58	54	50	47	11	10	10	67.8	39	36	34	39
26.0	16	15	14	56.5	58	54	51	47	11	10	9	69.0	39	36	34	39
26.5	15	14	13	57.5	58	54	51	47	10	9	9	70.2	39	36	34	39
27.0	15	14	13	58.4	59	55	51	47	10	9	9	71.4	39	37	34	40
27.5	14	13	12	59.4	59	55	51	47	10	9	8	72.5	39	37	34	40
28.0	14	13	12	60.3	59	55	51	47	9	9	8	73.7	40	37	34	40
28.5	13	12	12	61.3	59	55	52	47	9	8	8	74.9	40	37	35	40
29.0	13	12	11	62.2	60	55	52	47	9	8	8	76.0	40	37	35	40
30.0	12	11	11	64.1	60	56	52	47	8	8	7	78.3	40	37	35	40

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 7% for an irregular stand structure (see figure 8).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CP” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).

Table 109: Stocking levels for Douglas-fir in the PSME/CAGE plant association (full stocking = 281).

QMD	UPPER MANAGEMENT ZONE (SDI = 211)								LOWER MANAGEMENT ZONE (SDI = 141)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
1.0	6840	6440	5955	2.7	37	35	32	57	4560	4293	3970	3.3	25	23	22	51
1.2	5194	4890	4522	3.1	41	38	36	58	3463	3260	3015	3.8	27	26	24	52
1.4	4115	3875	3583	3.5	44	41	38	59	2744	2583	2389	4.3	29	28	26	53
1.6	3364	3167	2929	3.9	47	44	41	61	2243	2111	1952	4.7	31	29	27	54
1.8	2816	2651	2451	4.2	50	47	43	61	1877	1767	1634	5.2	33	31	29	55
2.0	2402	2261	2091	4.6	52	49	46	62	1601	1507	1394	5.6	35	33	30	56
2.2	2080	1958	1811	4.9	55	52	48	63	1386	1305	1207	6.0	37	34	32	57
2.4	1824	1717	1588	5.3	57	54	50	64	1216	1145	1058	6.4	38	36	33	57
2.6	1616	1521	1407	5.6	60	56	52	64	1077	1014	938	6.8	40	37	35	58
2.8	1445	1360	1258	5.9	62	58	54	65	963	907	839	7.2	41	39	36	58
3.0	1302	1226	1133	6.2	64	60	56	65	868	817	756	7.6	43	40	37	59
3.2	1181	1112	1028	6.5	66	62	57	66	787	741	685	8.0	44	41	38	59
3.4	1078	1015	938	6.8	68	64	59	66	719	676	626	8.4	45	43	39	60
3.6	989	931	861	7.1	70	66	61	67	659	621	574	8.7	47	44	41	60
3.8	911	858	793	7.4	72	68	62	67	607	572	529	9.1	48	45	42	61
4.0	843	794	734	7.7	74	69	64	68	562	529	489	9.5	49	46	43	61
4.2	783	738	682	8.0	75	71	66	68	522	492	455	9.8	50	47	44	62
4.4	730	687	636	8.3	77	73	67	68	487	458	424	10.2	51	48	45	62
4.6	683	643	594	8.6	79	74	69	69	455	429	396	10.5	53	49	46	62
4.8	640	603	557	8.9	80	76	70	69	427	402	372	10.9	54	51	47	63
5.0	602	567	524	9.1	82	77	71	69	401	378	349	11.2	55	52	48	63
5.2	567	534	494	9.4	84	79	73	70	378	356	329	11.5	56	53	49	63
5.4	536	505	467	9.7	85	80	74	70	357	336	311	11.9	57	54	49	64
5.6	507	478	442	10.0	87	82	76	70	338	318	294	12.2	58	54	50	64
5.8	481	453	419	10.2	88	83	77	71	321	302	279	12.5	59	55	51	64
6.0	457	430	398	10.5	90	85	78	71	305	287	265	12.8	60	56	52	64
6.2	435	410	379	10.8	91	86	79	71	290	273	253	13.2	61	57	53	65
6.4	415	390	361	11.0	93	87	81	71	276	260	241	13.5	62	58	54	65
6.6	396	373	345	11.3	94	89	82	72	264	248	230	13.8	63	59	55	65
6.8	378	356	329	11.5	95	90	83	72	252	238	220	14.1	64	60	55	65
7.0	362	341	315	11.8	97	91	84	72	241	227	210	14.4	65	61	56	66
7.2	347	327	302	12.0	98	92	85	72	231	218	201	14.7	65	62	57	66
7.4	333	314	290	12.3	99	94	87	72	222	209	193	15.1	66	62	58	66
7.6	320	301	279	12.5	101	95	88	73	213	201	186	15.4	67	63	58	66
7.8	308	290	268	12.8	102	96	89	73	205	193	179	15.7	68	64	59	66
8.0	296	279	258	13.0	103	97	90	73	197	186	172	16.0	69	65	60	67
8.2	285	269	248	13.3	105	98	91	73	190	179	166	16.3	70	66	61	67
8.4	275	259	239	13.5	106	100	92	73	183	173	160	16.6	71	66	61	67
8.6	265	250	231	13.8	107	101	93	74	177	167	154	16.9	71	67	62	67
8.8	256	241	223	14.0	108	102	94	74	171	161	149	17.2	72	68	63	67
9.0	248	233	216	14.2	109	103	95	74	165	156	144	17.4	73	69	64	68
9.2	240	226	209	14.5	111	104	96	74	160	150	139	17.7	74	69	64	68
9.4	232	218	202	14.7	112	105	97	74	155	146	135	18.0	75	70	65	68
9.6	225	212	196	15.0	113	106	98	75	150	141	130	18.3	75	71	66	68
9.8	218	205	190	15.2	114	107	99	75	145	137	126	18.6	76	72	66	68
10.0	211	199	184	15.4	115	109	100	75	141	133	123	18.9	77	72	67	68
10.5	196	185	171	16.0	118	111	103	75	131	123	114	19.6	79	74	69	69

Table 109: Stocking levels for Douglas-fir in the PSME/CAGE plant association (full stocking = 281).

QMD	UPPER MANAGEMENT ZONE (SDI = 211)								LOWER MANAGEMENT ZONE (SDI = 141)							
	TREES/ACRE				BASAL AREA/ACRE				TREES/ACRE				BASAL AREA/ACRE			
	EA	IS	UA	ES	EA	IS	UA	CC	EA	IS	UA	ES	EA	IS	UA	CC
11.0	183	172	159	16.6	121	114	105	76	122	115	106	20.3	81	76	70	69
11.5	171	161	149	17.1	123	116	107	76	114	107	99	21.0	82	77	72	69
12.0	161	151	140	17.7	126	119	110	76	107	101	93	21.7	84	79	73	70
12.5	151	142	131	18.3	129	121	112	77	101	95	88	22.4	86	81	75	70
13.0	142	134	124	18.8	131	123	114	77	95	89	83	23.0	87	82	76	70
13.5	134	126	117	19.3	134	126	116	77	90	84	78	23.7	89	84	78	71
14.0	127	120	111	19.9	136	128	118	78	85	80	74	24.4	91	85	79	71
14.5	121	114	105	20.4	138	130	120	78	80	76	70	25.0	92	87	80	71
15.0	115	108	100	21.0	141	132	122	78	76	72	67	25.7	94	88	82	72
15.5	109	103	95	21.5	143	135	124	78	73	68	63	26.3	95	90	83	72
16.0	104	98	91	22.0	145	137	126	79	69	65	60	26.9	97	91	84	72
16.5	99	93	86	22.5	147	139	128	79	66	62	58	27.6	98	92	86	72
17.0	95	89	83	23.0	150	141	130	79	63	60	55	28.2	100	94	87	73
17.5	91	85	79	23.5	152	143	132	79	61	57	53	28.8	101	95	88	73
18.0	87	82	76	24.0	154	145	134	79	58	55	51	29.4	103	97	89	73
18.5	83	79	73	24.5	156	147	136	80	56	52	48	30.1	104	98	90	73
19.0	80	76	70	25.0	158	149	137	80	53	50	47	30.7	105	99	92	73
19.5	77	73	67	25.5	160	151	139	80	51	48	45	31.3	107	100	93	74
20.0	74	70	65	26.0	162	152	141	80	49	47	43	31.9	108	102	94	74
20.5	71	67	62	26.5	164	154	143	81	48	45	41	32.5	109	103	95	74
21.0	69	65	60	27.0	166	156	144	81	46	43	40	33.1	111	104	96	74
21.5	67	63	58	27.5	168	158	146	81	44	42	39	33.7	112	105	97	74
22.0	64	61	56	28.0	170	160	148	81	43	40	37	34.3	113	106	98	75
22.5	62	58	54	28.5	172	161	149	81	41	39	36	34.8	114	108	100	75
23.0	60	57	52	28.9	173	163	151	81	40	38	35	35.4	116	109	101	75
23.5	58	55	51	29.4	175	165	153	82	39	37	34	36.0	117	110	102	75
24.0	56	53	49	29.9	177	167	154	82	38	35	33	36.6	118	111	103	75
24.5	55	51	48	30.3	179	168	156	82	36	34	32	37.2	119	112	104	75
25.0	53	50	46	30.8	181	170	157	82	35	33	31	37.7	120	113	105	76
25.5	51	48	45	31.3	182	172	159	82	34	32	30	38.3	122	114	106	76
26.0	50	47	43	31.7	184	173	160	82	33	31	29	38.9	123	116	107	76
26.5	49	46	42	32.2	186	175	162	83	32	30	28	39.4	124	117	108	76
27.0	47	44	41	32.7	188	177	163	83	31	30	27	40.0	125	118	109	76
27.5	46	43	40	33.1	189	178	165	83	31	29	27	40.6	126	119	110	76
28.0	45	42	39	33.6	191	180	166	83	30	28	26	41.1	127	120	111	76
28.5	43	41	38	34.0	193	181	168	83	29	27	25	41.7	128	121	112	77
29.0	42	40	37	34.5	194	183	169	83	28	27	25	42.2	129	122	113	77
30.0	40	38	35	35.4	198	186	172	84	27	25	23	43.3	132	124	115	77

Column headings are:

- QMD Quadratic mean diameter (the diameter of the tree of average basal area).
- EA Even aged, showing the trees/acre, or basal area/acre, associated with an even-aged stand structure.
- IS Irregular structure; even-aged SDIs were reduced by 6% for an irregular stand structure (from Long 1995).
- UA Uneven aged; even-aged SDIs were reduced by 13% for an uneven-aged stand structure (from Long 1995).
- ES Equilateral spacing, in feet, that the trees per acre associated with an even-aged stand structure (EA columns) would have when spaced equilaterally apart; also referred to as triangular spacing.
- CC Canopy cover; based on the “CD” equation from Dealy (1985) and the basal area per acre for an irregular structure (IS columns).