

# **Online Material**

## APPENDIX

Table A. Thinning data.

Species/ treatment	Time after thinning (y)	Volume after thinning (m <sup>3</sup> /ha)	Tree numbers after thinning	Mean tree size (m <sup>3</sup> )	potential stand volume <sup>1</sup> (m <sup>3</sup> /ha)	Closure <sup>2</sup>	period gross increment <sup>3</sup> (m <sup>3</sup> /ha/y)	period mortality volume <sup>3</sup> (m <sup>3</sup> /ha/y)	period mortality <sup>3</sup> (tree numbers)
<i>Lodgepole pine</i>									
control	0	235	4864	0.048	236	1.00			
control	5	275	4094	0.067	272	1.01	10.58	2.56	770
control	11	296	3493	0.085	300	0.99	6.30	2.24	601
control	16	335	3080	0.109	334	1.00	9.69	1.78	413
control	21	364	2723	0.134	364	1.00	7.97	2.31	357
control	26	399	2423	0.165	398	1.00	9.78	2.72	300
thinned	0	186	2911	0.064	266	0.70			
thinned	5	230	2798	0.082	296	0.78	9.29	0.46	113
thinned	11	260	2648	0.098	319	0.81	6.74	0.71	150
thinned	16	297	2498	0.119	347	0.86	8.31	0.79	150
thinned	21	336	2329	0.144	376	0.89	9.33	1.68	169
thinned	26	371	2197	0.169	402	0.92	7.89	0.86	131
thinned	0	135	2197	0.061	261	0.52			
thinned	5	175	2085	0.084	298	0.58	8.65	0.73	113
thinned	11	213	2028	0.105	328	0.65	7.97	0.38	56
thinned	16	264	1991	0.133	363	0.73	10.52	0.27	38
thinned	21	312	1859	0.168	401	0.78	10.07	0.52	131
thinned	0	93	1859	0.050	239	0.39			
thinned	5	125	1822	0.069	275	0.46	6.75	0.19	38
thinned	11	157	1765	0.089	306	0.51	6.46	0.24	56
thinned	16	199	1746	0.114	340	0.59	8.70	0.17	19
thinned	21	244	1746	0.140	371	0.66	9.01	0.08	0
thinned	26	279	1653	0.169	402	0.69	8.08	1.04	94
thinned	0	71	1333	0.054	247	0.29			
thinned	5	96	1164	0.083	297	0.32	6.32	1.30	169
thinned	11	124	1146	0.109	333	0.37	5.83	0.23	19
thinned	16	161	1108	0.146	378	0.43	7.48	0.12	38
thinned	21	203	1108	0.183	416	0.49	8.29	0.00	0
thinned	26	245	1033	0.237	465	0.53	9.15	0.74	75
thinned	0	57	732	0.077	288	0.20			
thinned	5	76	620	0.123	352	0.22	4.93	1.00	113
thinned	11	101	582	0.173	406	0.25	4.96	0.09	38
thinned	16	129	563	0.229	458	0.28	6.09	0.46	19
thinned	21	166	582	0.285	503	0.33	7.54	0.07	
thinned	26	197	582	0.339	542	0.36	7.61	1.37	0
<i>Scots pine</i>									
control	0	295	3304	0.089	319	0.92			
control	10	419	2455	0.171	435	0.96	17.24	4.76	849
control	15	494	2275	0.217	488	1.01	16.48	1.52	180
control	20	572	2052	0.279	549	1.04	19.06	3.52	224
control	25	589	1722	0.342	605	0.97	14.02	10.64	330
thinned*	0	251 (60)	2400 (1500)	0.080	302	0.83			
thinned*	10	334 (85)	1447 (953)	0.175	440	0.76	16.82		
thinned	15	411	1427	0.288	558	0.74	15.92	0.50	20
thinned*	20	447 (54)	1133 (293)	0.351	613	0.73	17.92		
thinned	25	489	1100	0.444	686	0.71	11.84	3.58	33
thinned*	0	284 (80)	1200 (904)	0.173	438	0.65			
thinned*	10	334 (80)	751(449)	0.345	608	0.55	12.93		
thinned	15	395	751	0.526	743	0.53	12.22	0.00	0
thinned*	20	432 (40)	635 (115)	0.630	810	0.53	15.58		
thinned	25	446	592	0.753	882	0.51	9.06	6.40	43

**Table A.** Continued.

Species/ treatment	Time after thinning (y)	Volume after thinning (m <sup>3</sup> /ha)	Tree numbers after thinning	Mean tree size (m <sup>3</sup> )	potential stand volume <sup>1</sup> (m <sup>3</sup> /ha)	Closure <sup>2</sup>	period gross increment <sup>3</sup> (m <sup>3</sup> /ha/y)	period mortality volume <sup>3</sup> (m <sup>3</sup> /ha/y)	period mortality <sup>3</sup> (tree numbers)
<i>Western hemlock</i>									
control	0	787	1501	0.524	797	0.99			
control	32	1297	745	1.741	1313	0.99	21.95	6.01	756
thinned	0	683	1093	0.625	858	0.80			
thinned	32	1293	722	1.791	1328	0.97	22.50	3.43	371
thinned	0	600	964	0.622	856	0.70			
thinned	32	1177	625	1.882	1356	0.87	22.02	3.98	339
thinned	0	556	709	0.783	942	0.59			
thinned	32	1175	567	2.071	1411	0.83	20.90	1.56	142
thinned	0	482	565	0.853	976	0.49			
thinned	32	957	451	2.121	1425	0.67	16.85	2.02	114
<i>Monarch birch</i>									
control	0	203	1050	0.193	202	1.00			
control	14	225	965	0.233	224	1.00	3.12	1.55	85
thinned	0	168	955	0.176	192	0.87			
thinned	14	194	830	0.234	225	0.86	2.96	1.10	125
thinned	0	108	630	0.171	189	0.57			
thinned	14	122	580	0.210	212	0.58	2.11	1.11	50
thinned	0	99	705	0.140	170	0.58			
thinned	14	127	680	0.187	198	0.64	2.51	0.51	25
<i>Gold birch</i>									
control	0	88	7950	0.011	88	1.00			
control	10	177	4460	0.040	177	1.00	10.29	1.38	3490
thinned	0	25	560	0.045	190	0.13			
thinned	10	70	510	0.138	349	0.20	4.96	0.46	50
thinned	0	52	1060	0.049	199	0.26			
thinned	10	177	1050	0.169	391	0.45	12.55	0.07	10
thinned	0	78	1480	0.053	207	0.38			
thinned	10	200	1400	0.143	357	0.56	12.51	0.35	80
thinned	0	49	2000	0.025	136	0.36			
thinned	10	153	1970	0.078	256	0.60	10.56	0.16	30

<sup>1</sup> Potential stand volume (based on control plot data for each experiment – see methods).

<sup>2</sup> Closure = stand volume/ potential stand volume of un-thinned stand with the same mean tree volume.

<sup>3</sup> Period values calculated for the time (time after thinning) between the line above and the current line.

\* In these treatments there were additional thinnings after the initial thinning. Volume and tree numbers in these thinnings (in brackets) were not separated from natural mortality, which therefore could not be estimated. These numbers were however used in the calculation of mean tree size.