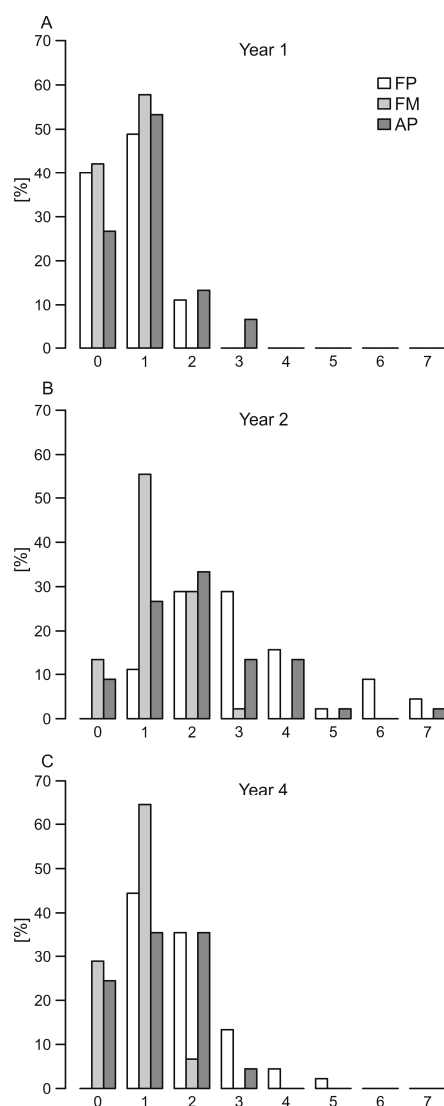
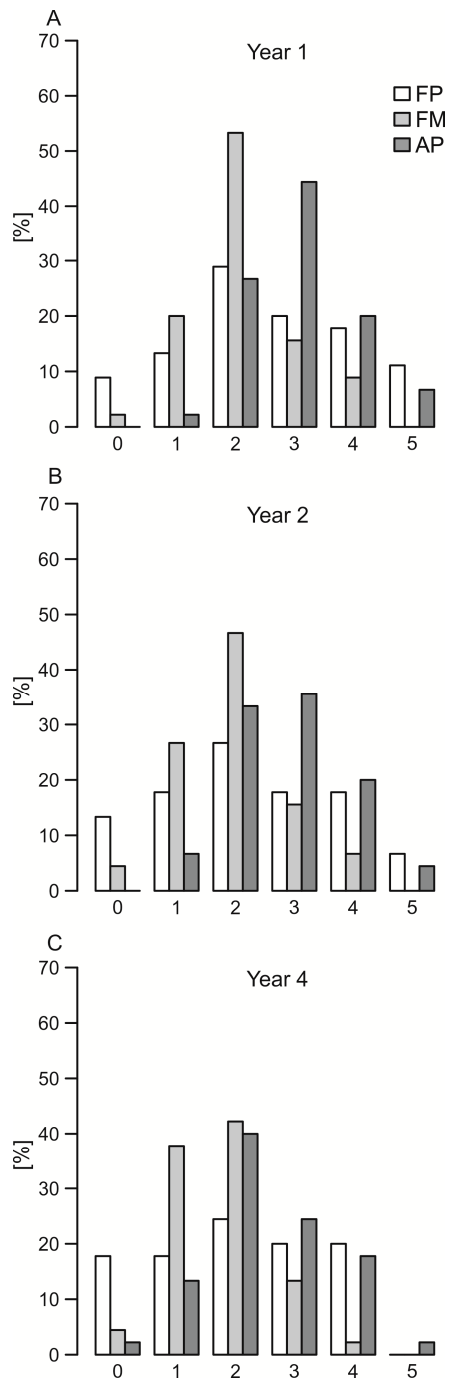


# Supplementary Materials: Effects of reforestation and site preparation methods on early growth and survival of Scots pine (*Pinus sylvestris* L.) in south-eastern Poland

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**Figure S1.** Evenness of seedling density (%) for Scots pine after natural regeneration in relation to mechanical site preparation methods (forest plough [FP]; forest mill [FM]; active plough [AP]) after the first year (A), the second year (B) and the fourth year (C). Seedling density classes: 0 = 'zero plots' (no seedlings); 1 = 1–4 seedlings; 2 = 5–8 seedlings; ... 7 = >25 seedlings.



**Figure S2.** Evenness of seedling density (%) for Scots pine after direct seeding in relation to mechanical site preparation methods (forest plough [FP]; forest mill [FM]; active plough [AP]) after the first year (A), the second year (B) and the fourth year (C). Seedling density classes: 0 = 'zero plots' (no seedlings); 1 = 1–4 seedlings; 2 = 5–8 seedlings; ... 5 = 17–20 seedlings.

**Table S1.** Results of 2-way ANOVAs describing the statistical significance of the effect of reforestation and of mechanical site preparation (MSP) methods on height, root collar diameter and density (natural regeneration, excluding self-sown seedlings that germinated in the second year) of Scots pine seedlings after four growing seasons. Bold values indicate significant differences at the level  $p \leq 0.05$

Variable	Source of variation	<i>df</i>	First season		Second season		Third season		Fourth season	
			<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Seedling height	Block	8	1.23	0.2976	0.62	0.7586	1.30	0.2594	1.36	0.2330
	Reforestation method (R)	2	588.17	<b>&lt;0.0001</b>	285.65	<b>&lt;0.0001</b>	115.90	<b>&lt;0.0001</b>	97.15	<b>&lt;0.0001</b>
	MSP method (M)	2	3.27	<b>0.0446</b>	8.07	<b>0.0008</b>	5.54	<b>0.0061</b>	1.29	0.2818
	R × M	4	2.50	0.0511	2.02	0.1034	1.39	0.2479	1.25	0.2979
Root collar diameter	Block	8	1.97	0.0643	1.71	0.1131	1.24	0.2917	1.60	0.1436
	Reforestation method (R)	2	311.91	<b>&lt;0.0001</b>	20.47	<b>&lt;0.0001</b>	42.69	<b>&lt;0.0001</b>	52.85	<b>&lt;0.0001</b>
	MSP method (M)	2	8.34	<b>0.0006</b>	4.18	<b>0.0198</b>	2.63	0.0804	0.63	0.5356
	R × M	4	0.90	0.4700	1.02	0.4013	0.64	0.6370	0.41	0.8008
Seedling density	Block	8	2.35	0.0280	2.52	0.0190	2.69	0.0130	2.73	0.0118
	Reforestation method (R)	2	131.03	<b>&lt;0.0001</b>	109.08	<b>&lt;0.0001</b>	103.17	<b>&lt;0.0001</b>	88.68	<b>&lt;0.0001</b>
	MSP method (M)	2	6.35	<b>0.0031</b>	5.49	<b>0.0063</b>	5.15	<b>0.0084</b>	4.53	<b>0.0144</b>
	R × M	4	2.09	0.0920	1.88	0.1245	1.91	0.1201	1.75	0.1507

**Table S2.** Regression equations describing the relationships between height increments and height and between root collar diameter increments and root collar diameter of Scots pine seedlings

Year	Function	$r$	$R^2$	$p$
2008–2009	$CAI_{rcd} = 2.366 + 0.413 \cdot rcd$	0.210	0.044	<0.001
2008–2009	$CAI_h = 5.289 + 0.737 \cdot h$	0.455	0.207	<0.001
2009–2010	$CAI_{rcd} = 1.657 + 1.104 \cdot rcd$	0.517	0.267	<0.001
2009–2010	$CAI_h = 13.174 + 0.705 \cdot h$	0.462	0.213	<0.001
2010–2011	$CAI_{rcd} = -0.845 + 0.439 \cdot rcd$	0.516	0.266	<0.001
2010–2011	$CAI_h = -1.129 + 0.516 \cdot h$	0.538	0.289	<0.001

$CAI_{rcd}$  = current annual increment of root collar diameter;  $CAI_h$  = current annual increment of tree height;  $r$  = coefficient of correlation;  $R^2$  = coefficient of determination;  $p$  = probability.