Repola J., Luoranen J., Huuskonen S., Peltoniemi M., Väänänen P., Uotila K. (2024). Biomass models for young planted Norway spruce and naturally regenerated silver birch, aspen and rowan trees. Silva Fennica vol. 58 no. 5 article id 24031. https://doi.org/10.14214/sf.24031

Supplementary file S7: Variance-covariance matrix of the fixed effects of the developed multi-response biomass model for aspen.

Effect		Stem			Branches			Foliage		Roots	
		Intercept	ln(d_s)	*h*	*Intercept*	$d_s/(d_s+k)$	*h*	*Intercept*	ln(d_s)	*Intercept*	$d_s/(d_s+k)$
Stem	*Intercept*	**0.01138**	**0.00784**	**-0.00589**	0.0009	0.005098	-0.00137	0.000145	-0.00013	0.002442	-0.00502
	ln(d_s)	**0.007837**	**0.01412**	**-0.00667**	-0.00686	0.01576	-0.00132	-0.00004	0.00005	-0.00111	0.00372
	h	**-0.00589**	**-0.00667**	**0.00395**	0.00172	-0.00612	0.000857	-0.00003	3.5E-05	-0.00044	0.00083
Branches	Intercept	0.000897	-0.00686	0.00172	**0.3257**	**-0.6265**	**0.03681**	0.01166	-0.01329	0.07121	-0.1873
	$d_s/(d_s+k)$	0.005098	0.01576	-0.00612	**-0.6265**	**1.467**	**-0.1276**	-0.0133	0.01795	-0.07933	0.2401
	h	-0.00137	-0.00132	0.00086	**0.03681**	**-0.1276**	**0.01754**	-0.00036	0.00049	-0.00473	0.01004
Foliage	Intercept	0.000145	-0.00004	-0.00003	0.01166	-0.0133	-0.00036	**0.003089**	**-0.00248**	0.007638	-0.01628
	ln(d_s)	-0.00013	0.00005	3.5E-05	-0.01329	0.01795	0.00049	**-0.00248**	**0.00335**	-0.008	0.02197
Roots	Intercept	0.002442	-0.00111	-0.00044	0.07121	-0.07933	-0.00473	0.007638	-0.008	**0.06771**	**-0.1591**
	$d_s/(d_s+k)$	-0.00502	0.00372	0.00083	-0.1873	0.2401	0.01004	-0.01628	0.02197	**-0.1591**	**0.4179**

Off diagonal blocks consist of the across equation covariances of the fixed effects, and block diagonal is variances-covariances matrix of the sub-model for the individual tree component (bold).