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Supplementary file S8: Variance-covariance matrix of the fixed effects of the developed multi-response biomass model for rowan.

Effect		Stem			Branches		Foliage		Stump		Roots	
		Intercept	$\ln(d_s)$	$\ln(h)$	*Intercept*	$d_s/(d_s+k)$	*Intercept*	$d_s/(d_s+k)$	*Intercept*	$d_s/(d_s+k)$	*Intercept*	$d_s/(d_s+k)$
Stem	*Intercept*	**0.002965**	**-0.00247**	**-0.00094**	0.01913	-0.02648	0.01085	-0.01952	0.00971	-0.01741	0.01904	-0.03414
	$\ln(d_s)$	**-0.00247**	**0.02113**	**-0.01811**	-0.04358	0.07395	-0.02301	0.05406	-0.01819	0.04545	-0.03633	0.08902
	$\ln(h)$	**-0.00094**	**-0.01811**	**0.02571**	0.00246	-0.00419	0.001076	-0.00253	-0.00218	0.001204	-0.00335	0.00251
Branches	*Intercept*	0.01913	-0.04358	0.00246	**0.8615**	**-1.3931**	0.1347	-0.3025	-0.06038	0.1273	0.2373	-0.531
	$d_s/(d_s+k)$	-0.02648	0.07395	-0.00419	**-1.3931**	**2.3213**	-0.2185	0.5133	0.0941	-0.2048	-0.384	0.8983
Foliage	*Intercept*	0.01085	-0.02301	0.00108	0.1347	-0.2185	**0.1145**	**-0.2534**	0.05409	-0.1198	0.1007	-0.2225
	$d_s/(d_s+k)$	-0.01952	0.05406	-0.00253	-0.3025	0.5133	**-0.2534**	**0.5953**	-0.1197	0.2814	-0.2226	0.5228
Stump	*Intercept*	0.009706	-0.01819	-0.00218	-0.06038	0.0941	0.05409	-0.1197	**0.1953**	**-0.425**	0.1857	-0.4065
	$d_s/(d_s+k)$	-0.01741	0.04545	0.0012	0.1273	-0.2048	-0.1198	0.2814	**-0.425**	**0.9819**	-0.4066	0.9463
Roots	*Intercept*	0.01904	-0.03633	-0.00335	0.2373	-0.384	0.1007	-0.2226	0.1857	-0.4066	**0.4046**	**-0.8847**
	$d_s/(d_s+k)$	-0.03414	0.08902	0.00251	-0.531	0.8983	-0.2225	0.5228	-0.4065	0.9463	**-0.8847**	**2.0559**

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).