

**Table S3** Standard error of the prediction models for the different methods tested.

Trait Category	Trait	Methods			
		RR-BLUP	BLAASSO	Bayes A	Bayes C $\pi$
Growth	HT	0.029	0.029	0.029	0.029
	HTLC	0.027	0.027	0.028	0.028
	BHLC	0.026	0.026	0.026	0.026
	DBH	0.027	0.027	0.027	0.027
Development	CWAL	0.029	0.030	0.030	0.030
	CWAC	0.026	0.027	0.027	0.027
	BD	0.032	0.032	0.032	0.032
	BA	0.025	0.025	0.025	0.025
	Rootnum_bin	0.030	0.030	0.031	0.031
	Rootnum	0.031	0.031	0.031	0.031
Disease resistance	Rust_bin	0.032	0.033	0.031	0.031
	Rust_gall_vol	0.033	0.033	0.033	0.033
Wood	StiffnessTree	0.027	0.028	0.028	0.028
	Lignin	0.032	0.032	0.032	0.032
	Latewood%4	0.031	0.031	0.032	0.031
	Density	0.032	0.032	0.032	0.032
	C5C6	0.031	0.031	0.031	0.031