

Additional file 1:

Partitioning accuracies of breeding values due to additive and dominance effects for Scenario 1 and Scenario 5.

Partitioning accuracies of breeding values due to additive and dominance effects

Breed A	G	Scenario 1			Scenario 5		
		BV	Add	Dom	BV	Add	Dom
	1	0.65	0.69	0.19	0.80	0.57	0.36
	2	0.49	0.56	0.18	0.61	0.40	0.22
	3	0.38	0.50	0.20	0.50	0.37	0.19
	4	0.30	0.47	0.19	0.43	0.34	0.19
	5	0.26	0.44	0.19	0.39	0.32	0.24
	Mean	0.42	0.53	0.19	0.54	0.40	0.24

Breed B	G	Scenario 1			Scenario 5		
		BV	Add	Dom	BV	Add	Dom
	1	0.64	0.71	0.15	0.79	0.61	0.36
	2	0.45	0.58	0.13	0.60	0.44	0.22
	3	0.35	0.50	0.11	0.49	0.38	0.19
	4	0.28	0.45	0.12	0.40	0.34	0.22
	5	0.26	0.43	0.15	0.32	0.30	0.22
	Mean	0.40	0.53	0.13	0.52	0.41	0.24

G: generation

BV: Accuracy of breeding values that is correlation between TBVC and GEBVC

Add: Accuracy of breeding values due to additive effects. **Dom:** Accuracy of breeding values due to dominance effects.

Scenario 1: Separate training in both breed A and B.

Scenario 5: Training on crossbred animals with phenotypes and genotypes. Two types of heterozygotes were assumed the same in crossbred animals.