

Summary with BV:

Genotype	BV _{ij}
G_1G_1	$2q \underline{a + (q-p)d} = 2q\alpha$
G_1G_2	$(q-p) \underline{a + (q-p)d} = (q-p)\alpha$
G_2G_2	$-2p \underline{a + (q-p)d} = -2p\alpha$

$\alpha = a + (q-p)d$

In practical genomic selection:

- Assume that $d=0 \Rightarrow$

$$\Rightarrow \alpha = a + (q-p)d = a$$

$$\Rightarrow BV_{11} = 2qa ; BV_{12} = (q-p)a ; BV_{22} = -2pa$$

