Recap 2023-10-06

□ Breeding Value for animal with genotype

$G_i G_j$ (G1G1, G1G2, G2G2) assuming that

Locus G has an effect on quantitative trait

$$\Rightarrow BV_{ij} = 2\left(\mu_{ij} - \mu\right)$$

where • μ_{ij} : mean genotypic

value of a large

number of offspring

of animal with genotype

$G_i G_j$

• μ : population mean

□ Population mean (μ)

$$\mu = E[V] = (p-q)a + 2pqd$$

where $f(G_1) = p$

$f(G_2) = q$

$V_{11} = a$; $V_{12} = d$; $V_{22} = -a$