

# Extension to two loci A and B

(5)

$$\frac{A_1 B_1}{A_1 B_2}$$

$$\frac{A_2 B_1}{A_1 B_1}$$

$$\frac{A_1 B_2}{A_2 B_2}$$

$$\frac{A_2 B_2}{A_2 B_2}$$

Genotypic Value  $V_{ijkl}$  for animals with  
genotype  $A_i A_j B_k B_l$

Genotype	$V_{ijkl}$
$A_1 A_1 B_1 B_1$	$V_{1111}$
$A_1 A_1 B_1 B_2$	$V_{1112}$
$\vdots$	$\vdots$

Averages over a  
large number of  
environments

$$Y_{ijk\ell m} = V_{ijkl} + E_{ijk\ell m}$$