$$\sigma_P^2 = \sigma_A^2 + \sigma_D^2 + \sigma_I^2 + \sigma_E^2 + \sigma_{GxE}^2$$

Additive Variance

Inter-allelic dominance effects.

Example: consider that the alleles A_1 and A_2 contribute 2 & 4 g of overall weight.

- $A_1A_1 = 2 + 2 = 4$ g
- $A_1A_2 = 2 + 4 = 6$ g
- $A_2A_2 = 4 + 4 = 8$ g

$$\sigma^2_P = \sigma^2_A + \sigma^2_D + \sigma^2_I + \sigma^2_E + \sigma^2_{GxE}$$

Dominance Variance

Allelic “dosage” effects

Example: Consider that the alleles A_1 and A_2 result in either 2 or 4 g of overall weight with A_1 being dominant to A_2.

- A_1A_1 = 2 g
- A_1A_2 = 2 g
- A_2A_2 = 4 g