

From Sire Model to Animal Model

- Sire model provides predicted breeding values only for sires.
- Sire model only accounts for relationships between sires
- New: Animal model predicts breeding values for all animals in the pedigree
 - Takes into account all relationships between animals

□ BLUP. Animal Model:

$$y = X\beta + Zu + e$$

u : vector of random breeding values for all animals in the pedigree

Z : design matrix linking observations to breeding values

other components: same as sire model