

Reference Population

Observations

Animal 1

SNP1 SNP2 ... SNPk

y1

Animal 2

SNP1 SNP2 ... SNPk

y2

⋮

⋮

Animal N

SNP1 SNP2 ... SNPk

yN

a1

a2

...

ak

Young Bull

SNP1 SNP2 ... SNPk

Use SNP-effects to
Predict GEBV for
young bull

Estimate SNP-effects using a Marker Effect Model