

Conclusion

- Selection based on phenotypes alone is sub optimal, because parents do not pass phenotypes to offspring. But they pass random sample of alleles.

Genetic background/potential is important for selecting animals as parents.

- How to quantify genetic potential of an animal with respect to a certain trait?

- Genetic potential of animals can still not be observed. Despite all available genomic information.

→ Model the relationship between phenotypic observations and genetic background.

- Genetic Model: $P = G + E$