

# Breeding strategies using genomic selection increase genetic gain in wheat breeding programs

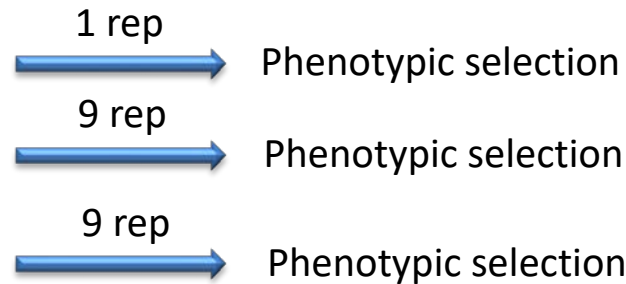
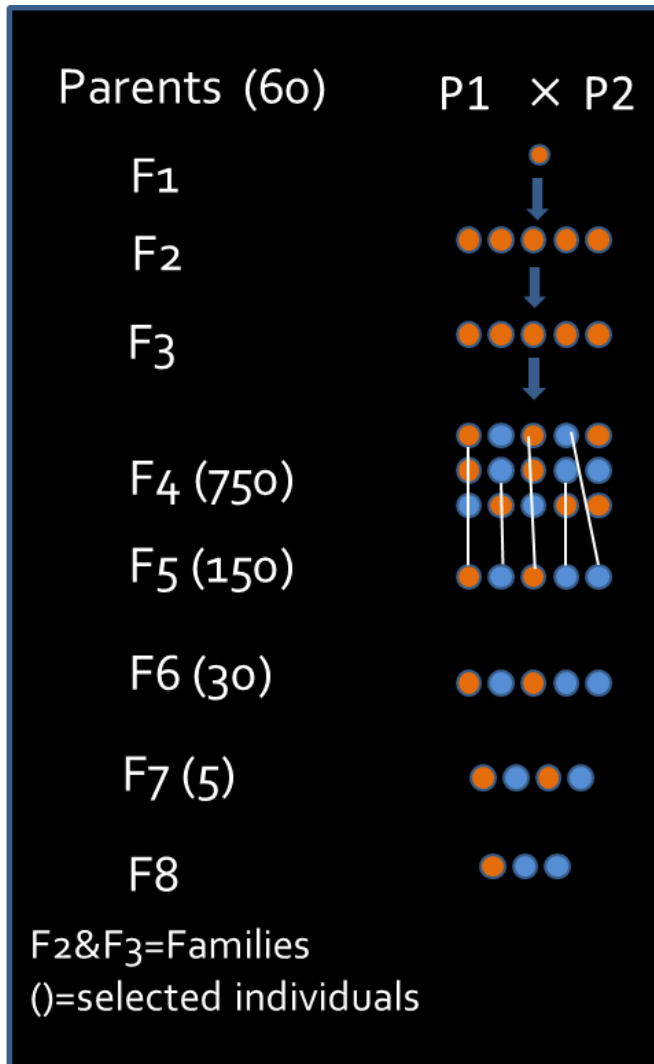
B.B. Tessema<sup>1</sup>, H. Liu<sup>1</sup>, A. C. Sorenson<sup>1</sup>, J.R. Andersen<sup>2</sup>, J. Jensen<sup>1</sup>

Wheat breeding has been running for so many years, yet genetic gain has been very limited

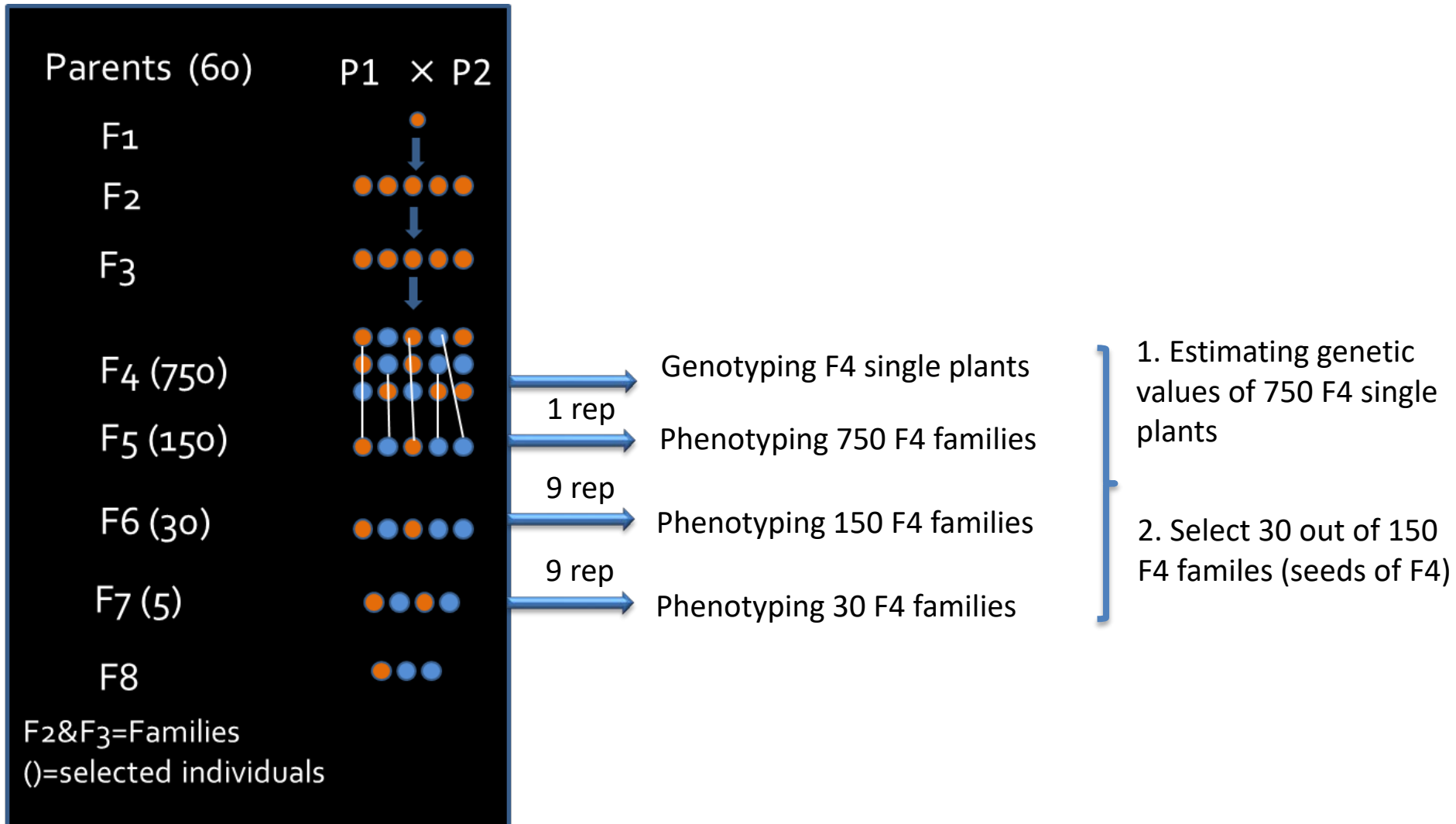
## AIM

- To propose a strategy to implement genomic selection on conventional wheat breeding program
- Investigate effect of genetic correlation between traits on genetic gain

# Phenotypic Selection

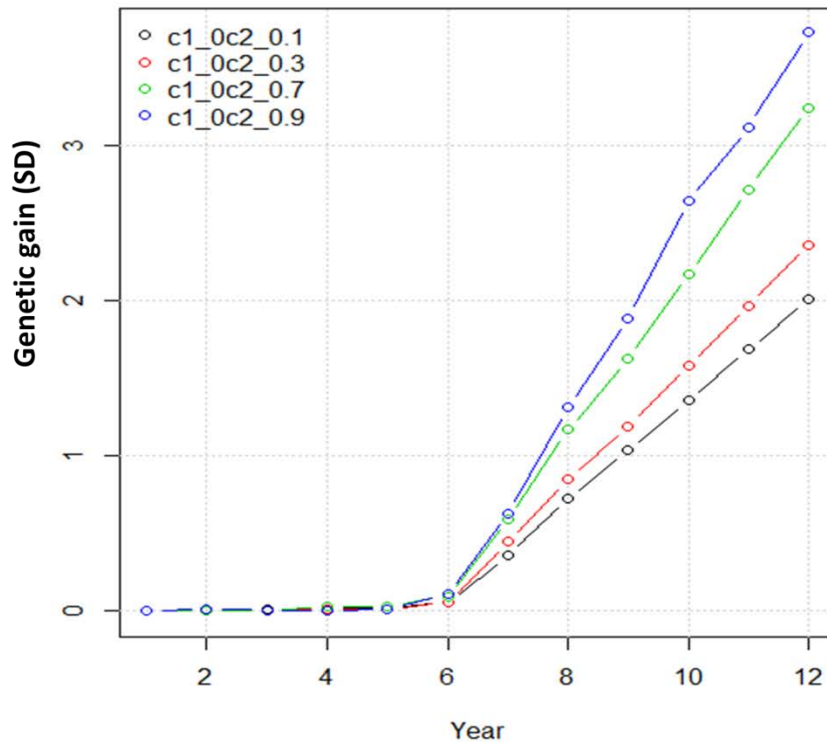


# Genomic Selection

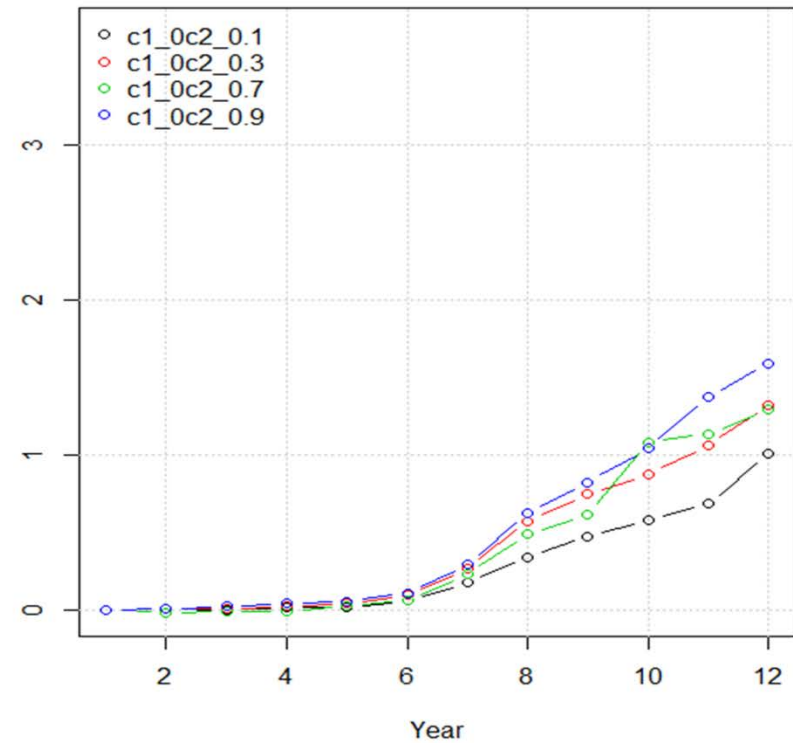


# Genetic gain with genomic and phenotype as selection criteria

Genomic selection



Phenotypic selection



# Conclusion

- Higher genetic gain with GEBV as a selection criteria
- Higher correlation between traits gave higher genetic gain
- Genomic selection is a promising strategy to improve wheat breeding programs