Phenotype data

Genome-wide marker data

Training data (84 varieties/lines)

Phased genotype of parental lines

Linkage phase estimation (by BEAGLE)

Marker genotype of F1 progeny

Linkage map of 330 SSR markers

MCMC sampling of genetic effects based on BayesA model

MCMC samples of the genetic effect of each marker

Segregation simulation in F1 populations

Calculate posterior breeding values of the F1 progeny

Segregation of target traits in the F1 population

Choose promising crosses