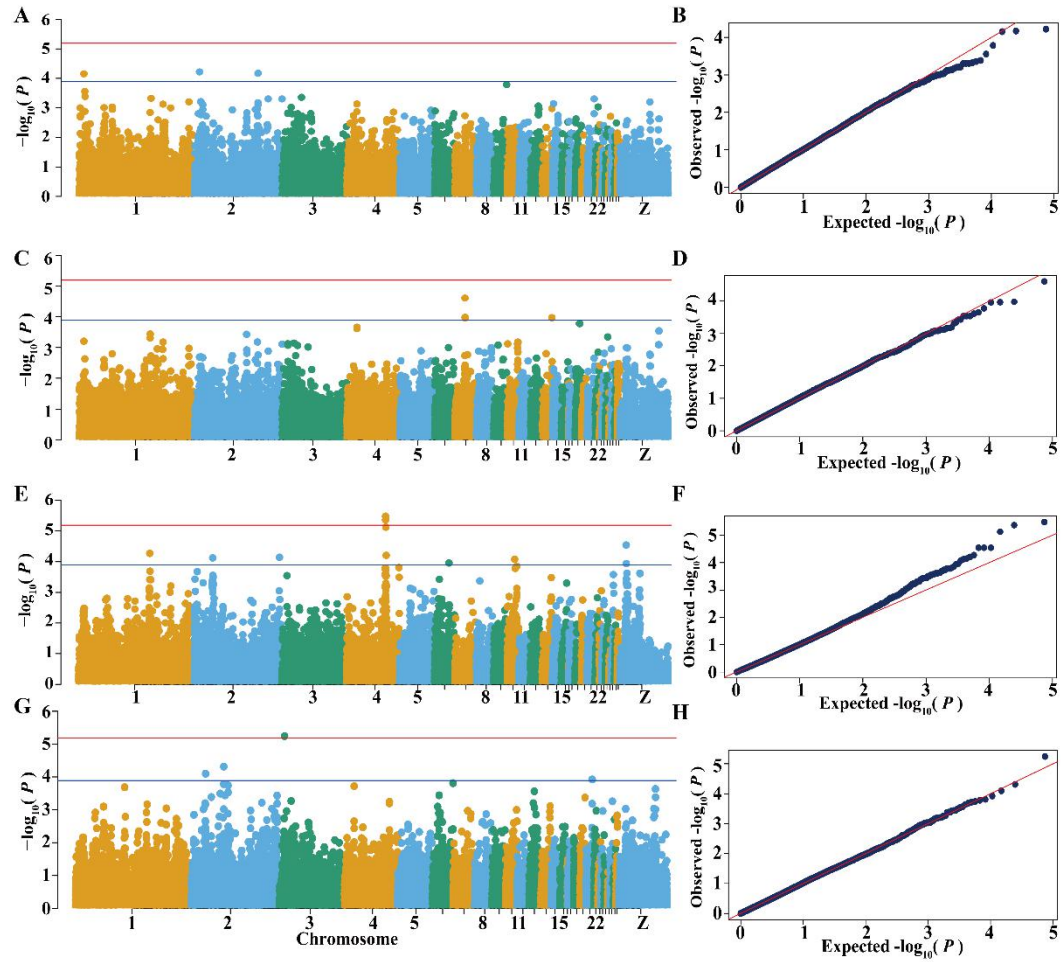


Figure.S5 Manhattan and quantile–quantile (Q-Q) plots of the GWAS for AFE, EN1, EN3 and EN4 traits.



A, C, E and G represent the Manhattan plots of AFE, EN1, EN3 and EN4, respectively; Each dot is a SNP in the dataset; The horizontal red and blue lines indicate the genome-wide significant (P value = 6.43×10^{-6}) and suggestive thresholds (P value = 1.29×10^{-4}), respectively. B, D, F and H represent the Quantile–quantile plots of AFE, EN1, EN3 and EN4, respectively; The red line represents the concordance of observed and expected values. And the genomic inflation factor (λ) for each line is as follows: AFE, $\lambda = 1.04$; EN1, $\lambda = 1.04$; EN3, $\lambda = 0.998$; EN4, $\lambda = 0.993$. These results demonstrate the high accuracy and reliability of the GWAS results.

The AFE represents the age at first egg; EN1, EN3, and EN4 represent egg numbers at four stages (egg number from onset of laying eggs to 195 days, from 228 to 307 days, and from 308 to 354 days, respectively)