



**Supplementary Fig. S5. Manhattan and QQ plots of the genome-wide association study for the fresh weight traits using MLM models.** a, c, e, g, i, k, l, m, n: Manhattan plots of the GWAS for different traits by using MLM model; b, d, f, h, j, l, n, p: QQ plots of the GWAS for different traits by using MLM model. Note: The definitions of abbreviations for each environmental trait (such as 2020\_FW, 2021\_1st\_FW, 2022\_Total\_FW) are the same as those provided in Table 1.