



**Supplementary Figure 12.** Single-marker analyses of markers-trait association for average citrate (CIT), malate (MAL), malate/citrate ratio ( $MC_{ratio}$ ) and titratable acidity (TA) in cross-parents of four  $F_1$  progenies: 'BO96621030' (B1) x 'Harostar' (H), 'Fiamma' (F) x 'BO93623033' (B2), 'Goldrich' (G) x 'Moniqui' (M) and 'Lito' (L) x 'BO81604311' (B). SNPs markers were selected based on parental segregation,  $lm \times ll$  and  $nn \times np$  types according to JointMap nomenclature, respectively for mother and seed parents (the number of markers is reported in Materials & Methods section).