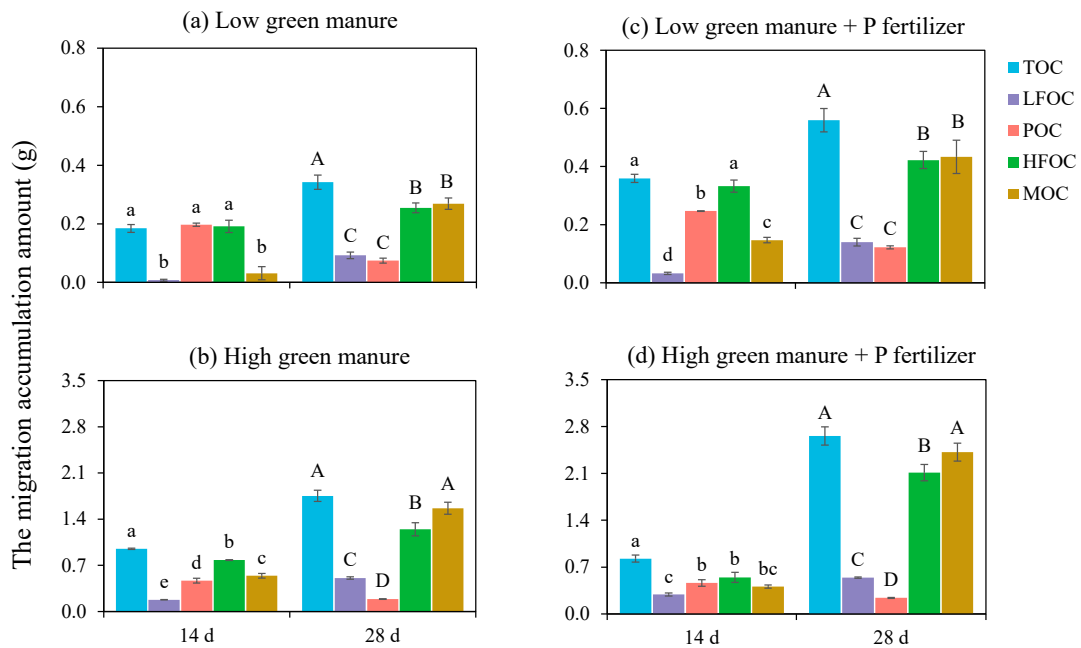
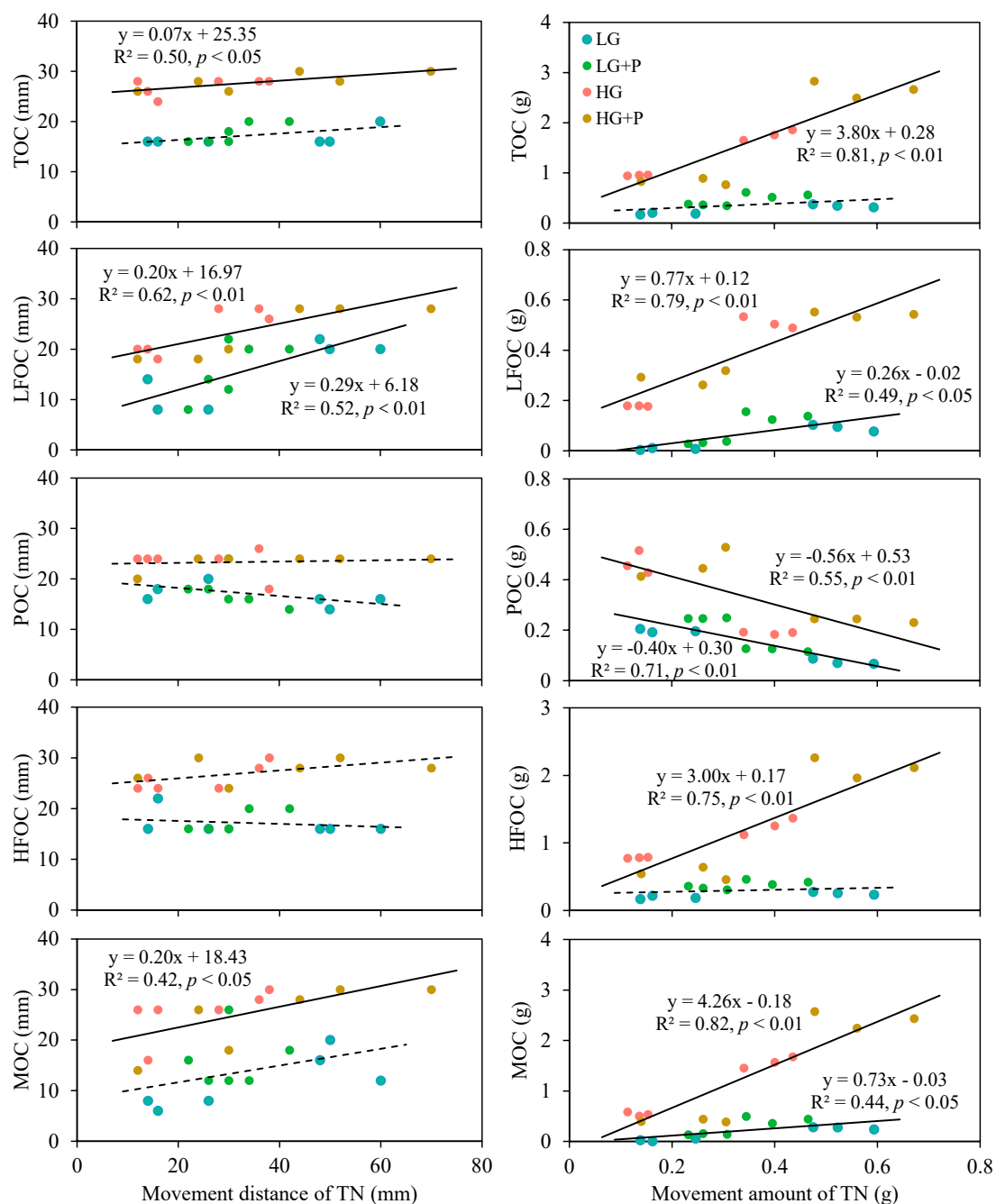


**Figure S1.** The final migration distance of soil organic carbon fractions at 14 and 28 days. The vertical bands represent standard error (n = 3), the lowercase letter indicates that the soil organic carbon fractions are significantly different at the 0.05 level at 14 days, and the capital letter indicates that the soil organic carbon fractions are significantly different at the 0.05 level at 28 days.



**Figure S2.** The final migration accumulation amount of the soil organic carbon fractions at 14 and 28 days. Vertical bands represent the standard error (n = 3), the lowercase letter indicates that soil organic carbon fractions are significantly different at the 0.05 level at 14

days, and the capital letter indicates that the soil organic carbon fractions are significantly different at the 0.05 level at 28 days.



**Figure S3.** The relationship between the movement distance and the accumulation amount of soil total nitrogen and soil organic carbon fractions. The solid line and dotted line indicate that there is a significant correlation and there is no correlation between the two variables, respectively.  $R^2$  is the fitness of the equation, and the  $p$  value indicate the correlation between the two variables.