

Figure 1. Tiller number at leaf-age 4 and 6, tiller occurrence percentage, and biomass accumulation in response to N application rate and CO₂ concentration. Error bars are standard deviations; Bars with different letters mean they are significantly different at $p \leq 0.05$.

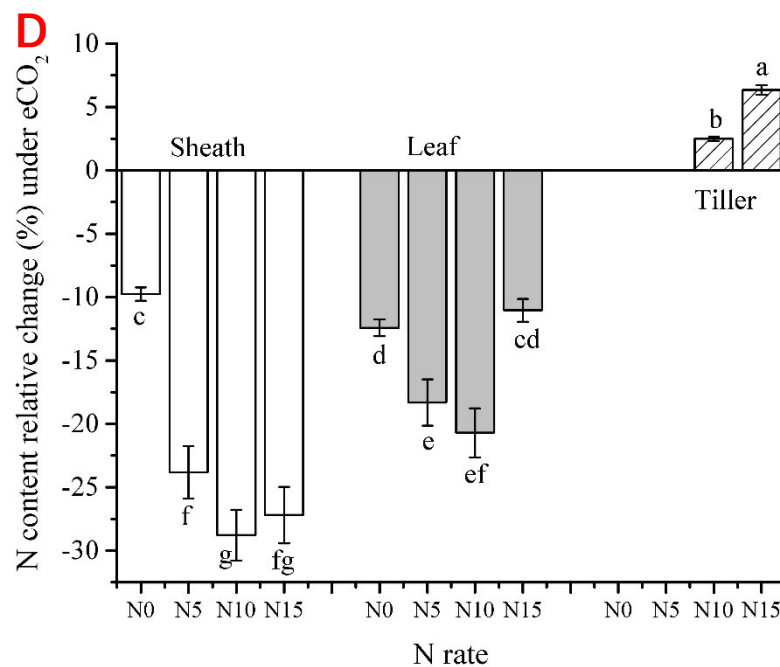
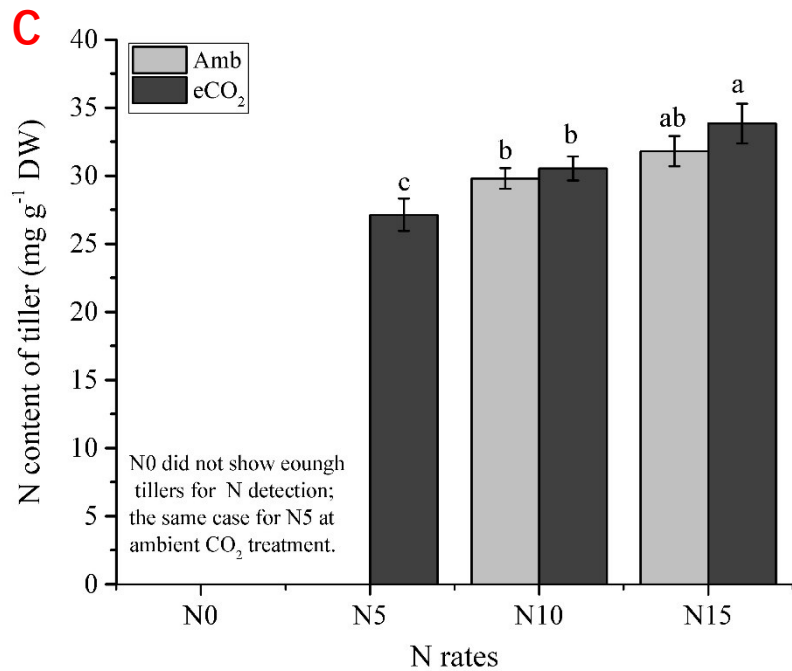
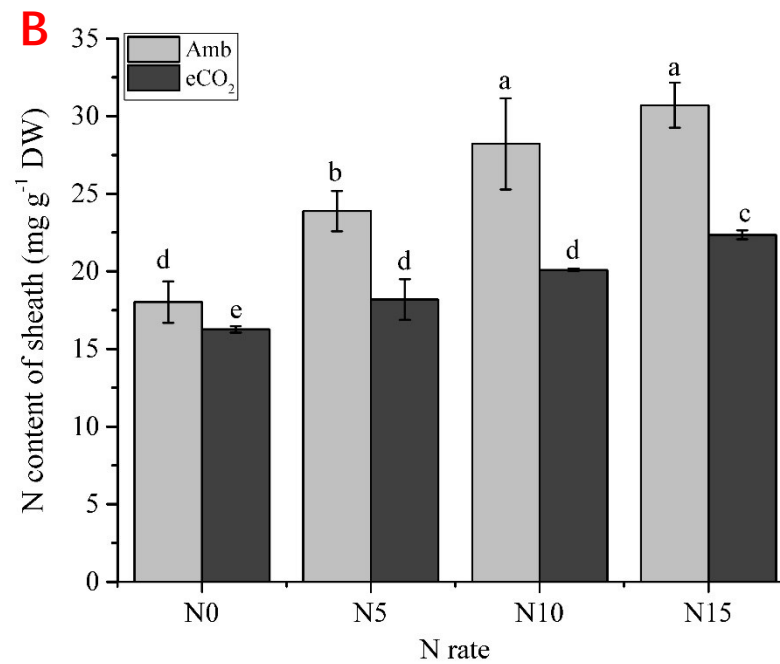
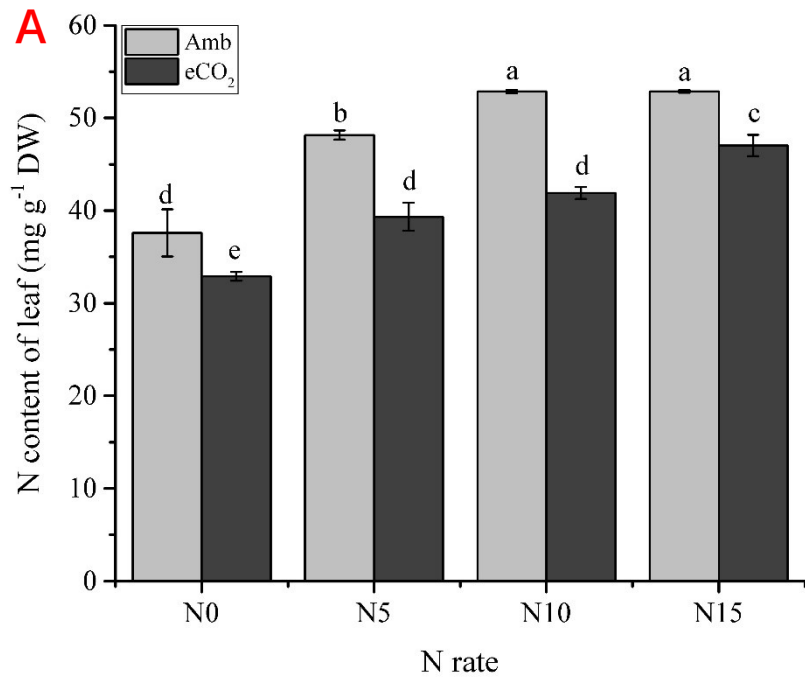


Figure 2. The responses of N content in leaf, sheath, and new-born tillers to N application rate and CO₂ conditions (A, B and C), and their relative change under eCO₂ to ambient CO₂. Error bars are standard deviations; Bars with different letters mean they are significantly different at $p \leq 0.05$.

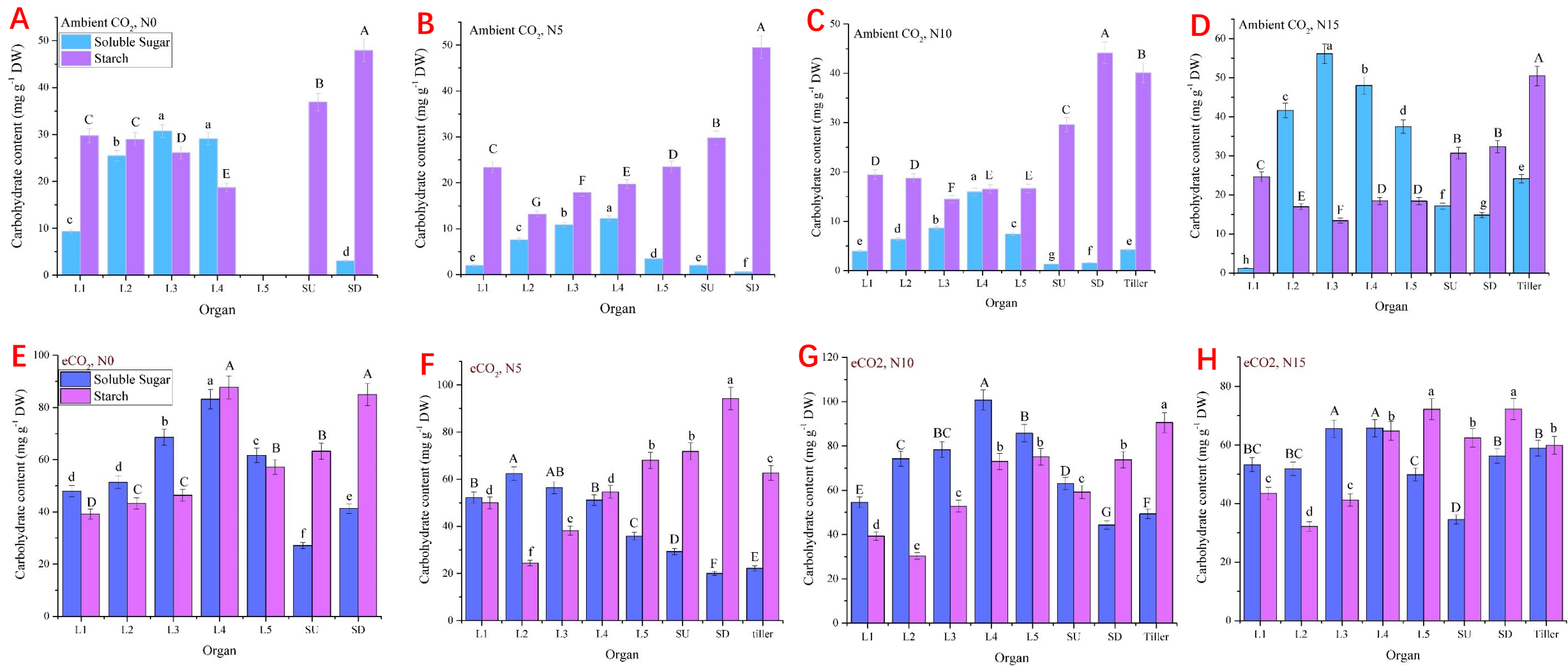


Figure 3. Carbohydrates change in response to N application rate and CO₂ condition. L1-L5 represent leaf positions 1-5, respectively; SU and SD represent up and down part of sheath, respectively; tiller were new-born ones at leaf-age 6; Error bars are standard deviations; Bars with different letters mean they are significantly different at $p \leq 0.05$.

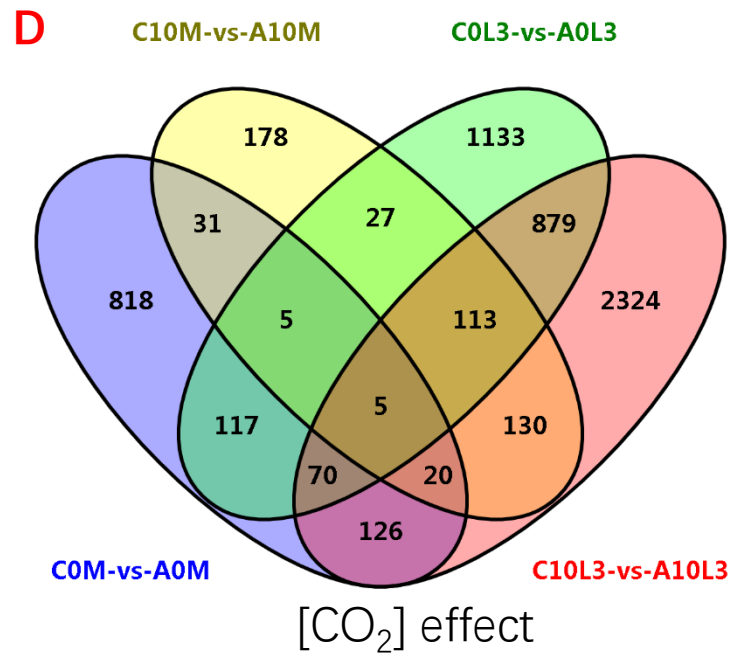
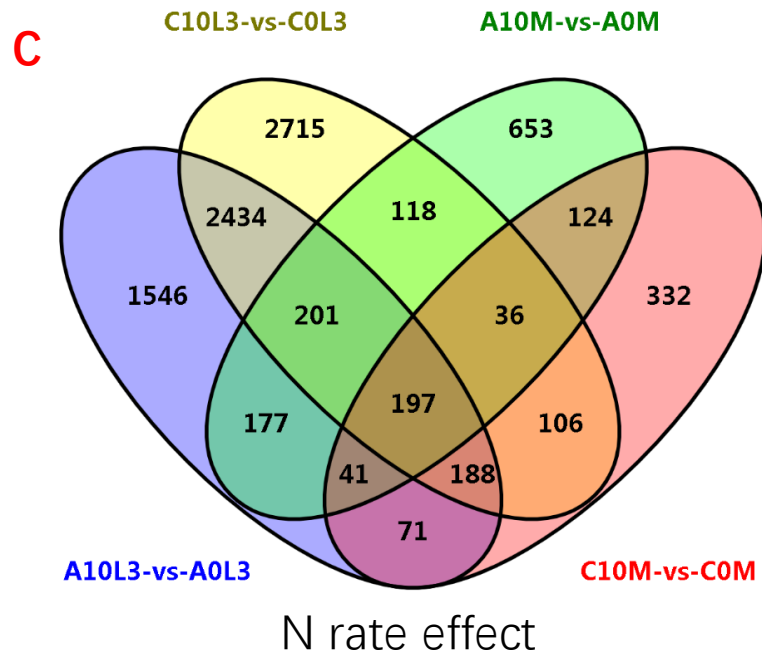
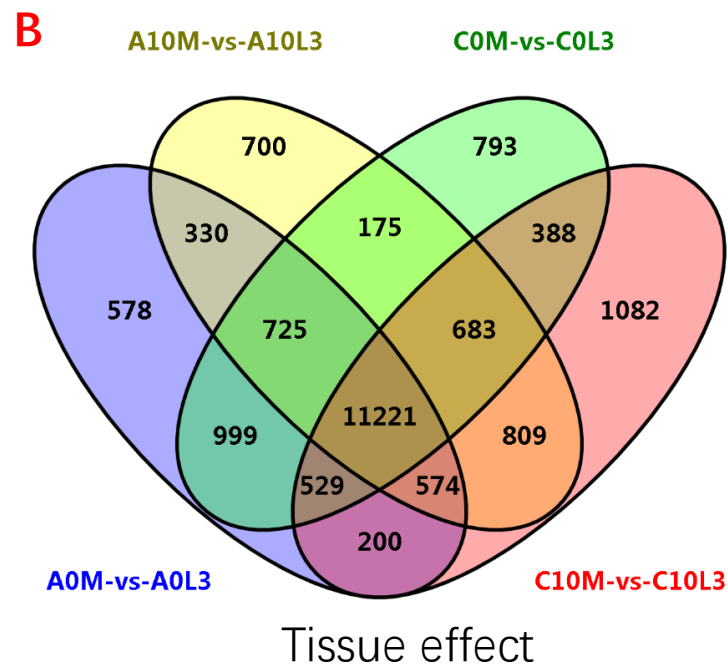
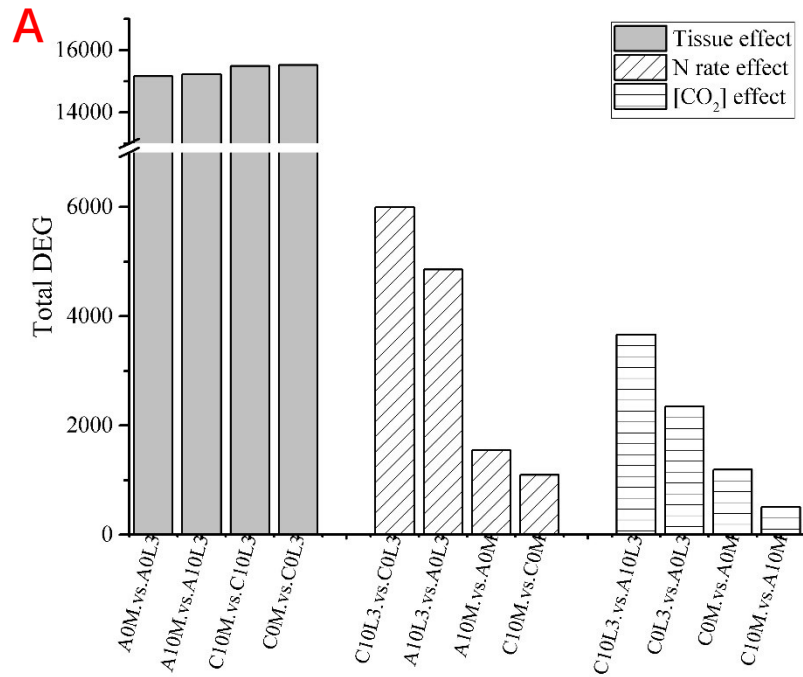


Figure 4. The number of differentially expressed genes (DEG) and Venn diagrams of different comparisons.

A and C represent ambient and e CO_2 , respectively; L3 and M stand for leaf number 3 and SAM respectively; 0 and 10 represent N application rate N0 and N10, respectively.

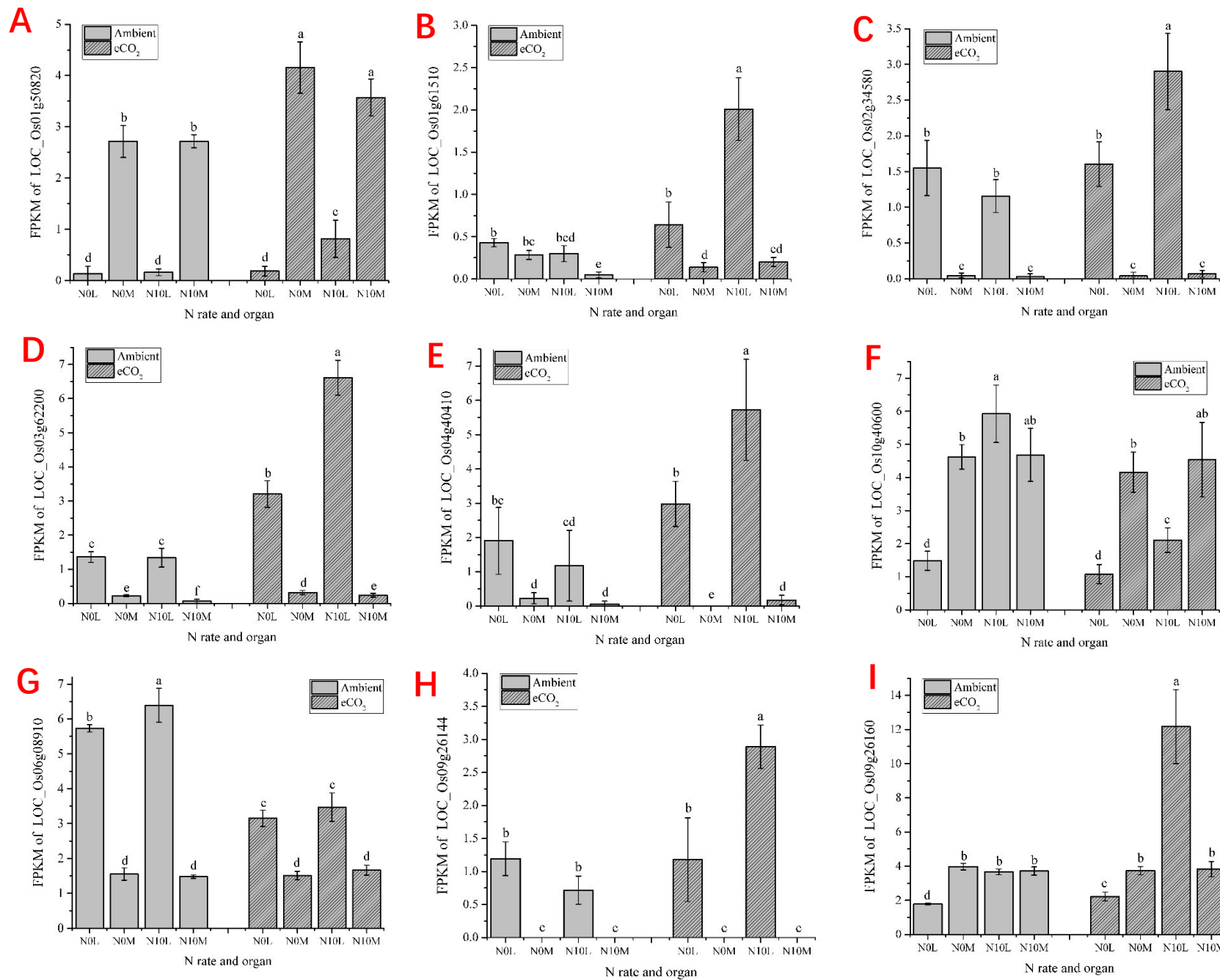


Figure 5. The gene expression (FPKM) in leaf and SAM in response to N application and CO₂ condition.

L for leaf, M for SAM, Ambient and eCO₂ stand for ambient and enriched CO₂ treatments, respectively. Error bars are standard deviations; Bars with different letters mean they are significantly different at $p \leq 0.05$.