

Fig. 1 The impacts of Si supply on: a) nodule number per plant and nodule concentrations (ng g^{-1} dry mass) of b) Liquiritigenin, c) 2'-O-methylliquiritigenin, d) Formononetin, e) Glycitein and f) total flavonoids in the plants associated with low-efficiency and high-efficiency rhizobial strains. Dots represent individual measurement per plant (n). Statistically significant factors, namely rhizobial strain (Rhizo), Si, and their interactions are indicated as: ns (not significant), * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$. Different capital letters and the horizontal lines indicate significance at $p < 0.05$.

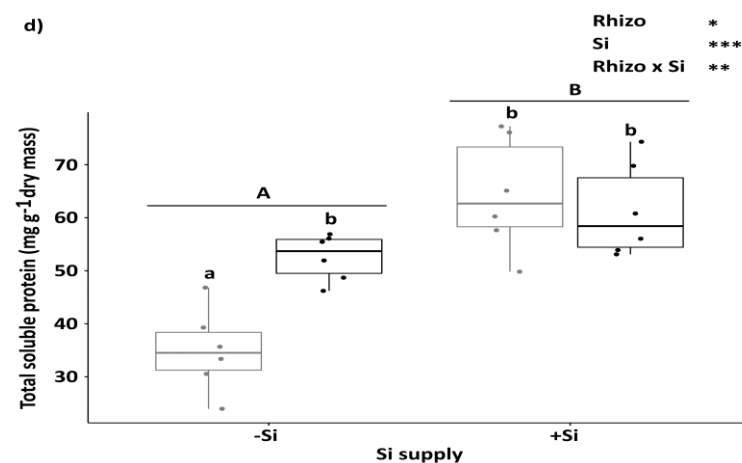
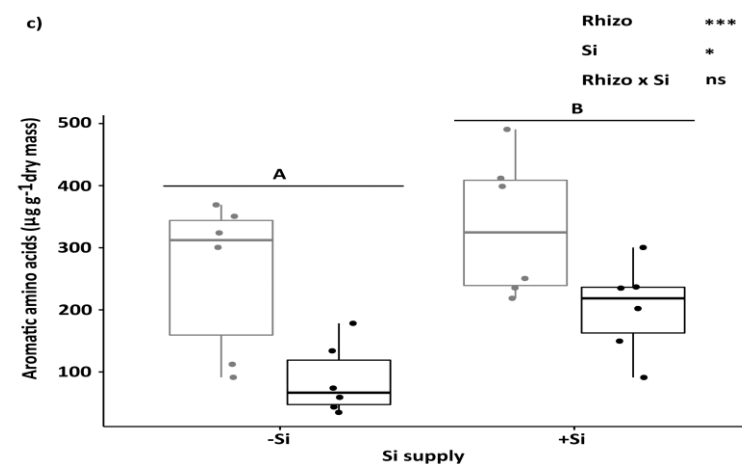
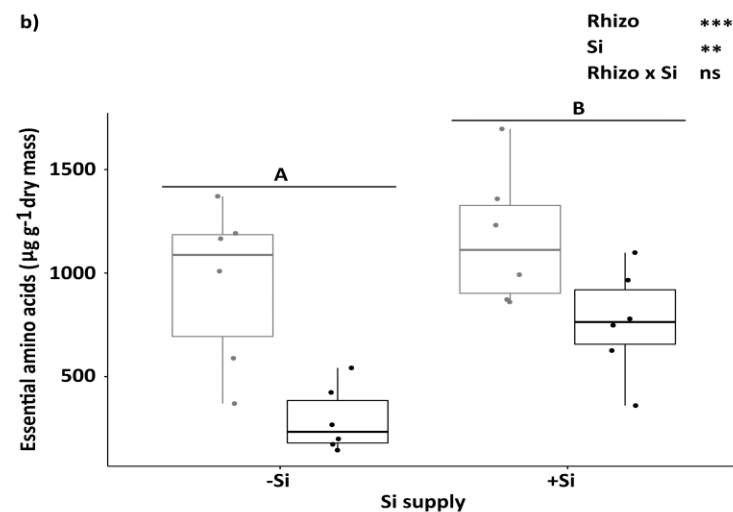
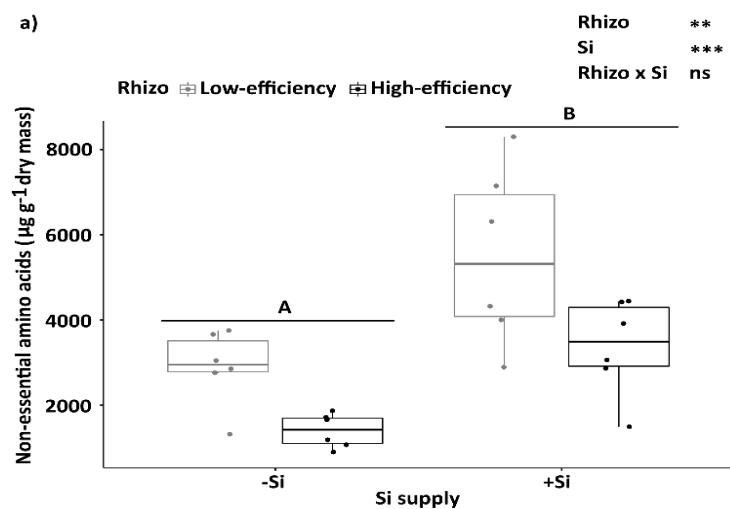


Fig. 2 The impacts of Si supply on foliar concentrations of free amino acids ($\mu\text{g g}^{-1}$ dry mass): a) non-essential, b) essential and c) aromatic, and of d) total soluble protein (mg g^{-1} dry mass) in the plants associated with low-efficiency and high-efficiency rhizobial strains. Dots represent individual measurement per plant (n). Statistically significant factors, namely rhizobial strain (Rhizo), Si, and

their interactions are indicated as: ns (not significant), $*p < 0.05$, $**p < 0.01$ and $***p < 0.001$. Different capital letters and the horizontal lines indicate significance at $p < 0.05$.

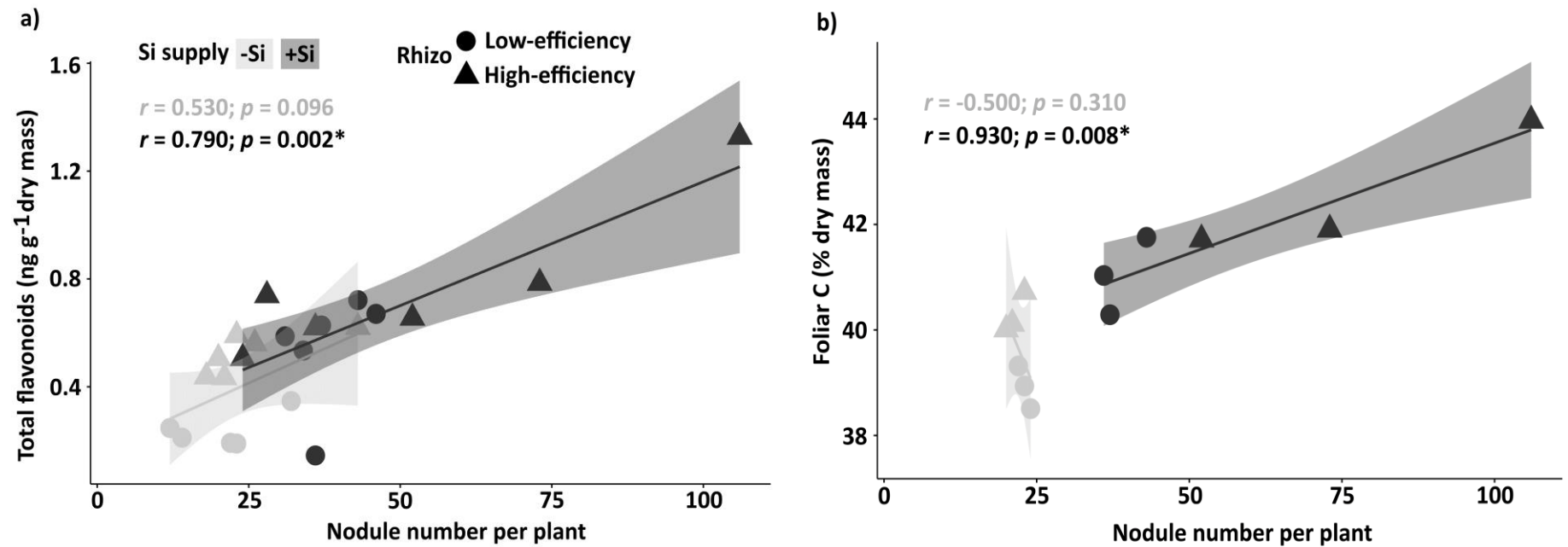


Fig. 3 Pearson's correlation tests between nodule number per plant and: a) total flavonoids (ng g⁻¹ dry mass) and b) foliar C (% dry mass). Light grey indicates -Si plants and dark grey indicates +Si plants, associated with low-efficiency (closed circle) or high-efficiency (closed triangle) rhizobial strains. Circles and triangles represent measurements from individual plants (n), regression lines represent a slope of the model and ribbons shows 95% CI. Statistical significance was set at $p < 0.05$ and indicated by an asterisk (*).