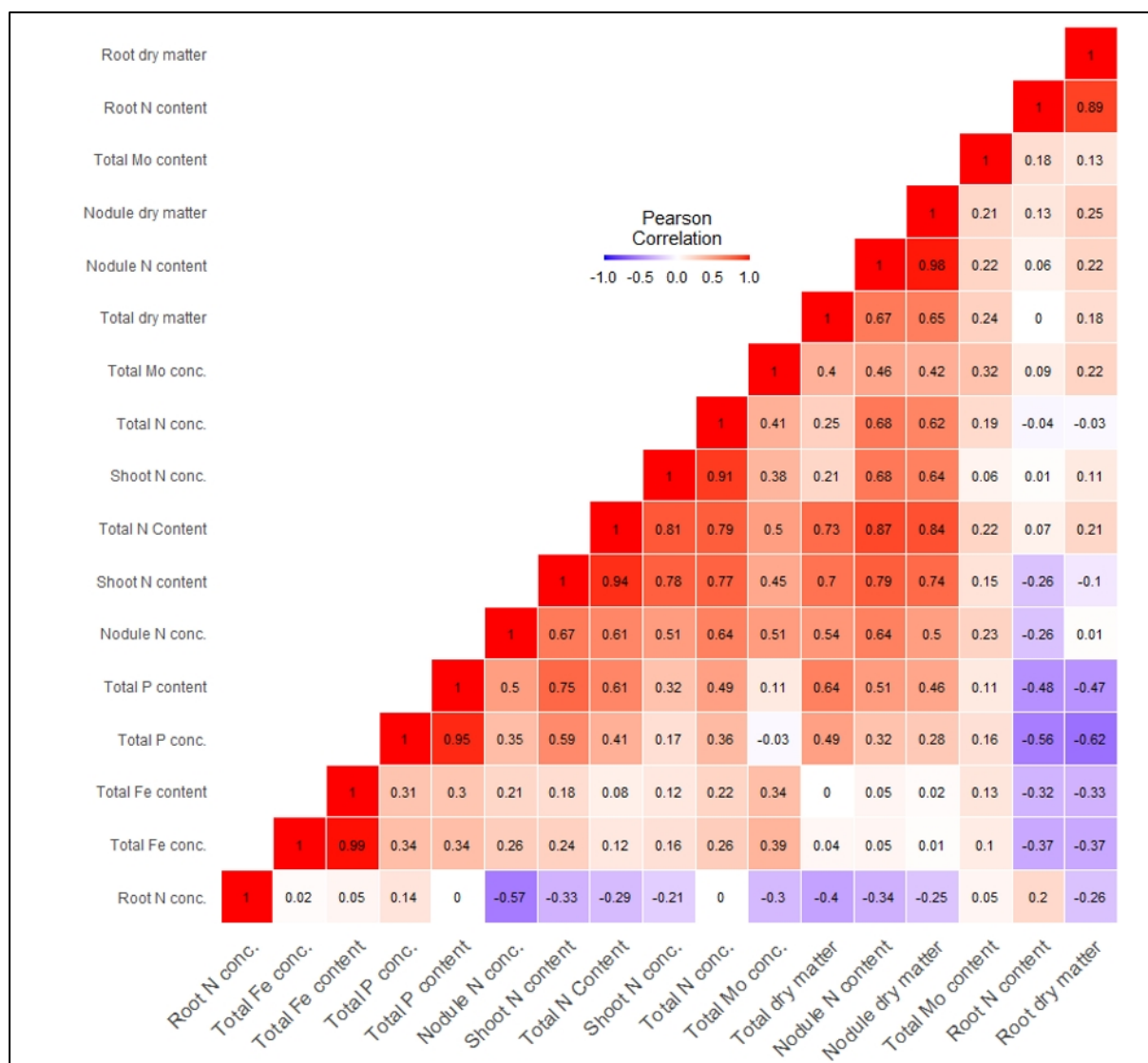


## Supplementary Materials



**Figure S1.** Photographic representation of the differences between (a) varieties (b) treatments and (c) nodulation of two faba bean varieties in response to low- $\text{KH}_2\text{PO}_4$  (-Pi), adequate- $\text{KH}_2\text{PO}_4$  (+Pi) and phytic acid (Po), inoculated with *Rhizobium leguminosarum* bv. *viciae* 3841 and grown in a hydroponic experiment for 30 days.





**Figure S3.** Heat map of correlations of 17 traits associated with plant biomass, nutrients (P, N, Fe and Mo) concentration/content of Tiffany and Hiverna varieties fertilized with low-  $\text{KH}_2\text{PO}_4$  (-Pi), adequate- $\text{KH}_2\text{PO}_4$  (+Pi) and phytic acid (Po), inoculated with *Rhizobium leguminosarum* bv. *viciae* 3841 and grown in a hydroponic experiment for 30 days. Created following Pearson's  $r_s$ -values. Colour, values and square denote Pearson's ranks correlation  $r$  between traits, with four biological replicates.