**Supplementary material**

**Omitting the application of nitrogen or potassium reduced the growth of young chestnut (*Castanea sativa*) trees, while a lack of boron decreased fruit yield**

Margarida Arrobas1,2, Soraia Raimundo1,2, Carlos Manuel Correia3, Manuel Ângelo Rodrigues1,2,\*

1 Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal (M.A.; S.R.);

2 Laboratório para a Sustentabilidade e Tecnologia em Regiões de Montanha, Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal;

3 Centre for the Research and Technology of Agro-Environmental and Biological Sciences (CITAB), University of Trás-os-Montes and Alto Douro, 5001-801 Vila Real, Portugal (J.M.-P.; C.M.C.).

\*Correspondence: angelor@ipb.pt (M.Â.R.)



Figure S1. Leaf concentration of nutrients not included in the experimental design, from samples taken in July (J) (2019-2022), in response to fertilizer treatments in a nutrient omission trial. The control received all four nutrients (nitrogen, phosphorus, potassium, and boron, NPKB), while others received only three out of the four, with the missing nutrient marked with (-). LLSR and HLSR are the lower and higher limit of the sufficiency range, respectively. The vertical bars are the standard error of the variance analysis. \*, \*\* and \*\*\* significant differences at P < 0.05, P < 0.01 and P < 0.001; ns, not significant.