

Figure S1. Activity of catalase (CAT) in shoots of 3-week-old wheat grown in disturbed (white columns) and undisturbed (grey columns) acid soil with previously grown arbuscular mycorrhizal fungi associated to *Silene gallica* L. (non-mycotrophic) and *Lolium rigidum* L. (strongly mycotrophic) and to no previous developer, in Mn toxic conditions. Different letters indicate statistically significant differences between the different treatments ($p < 0.05$).

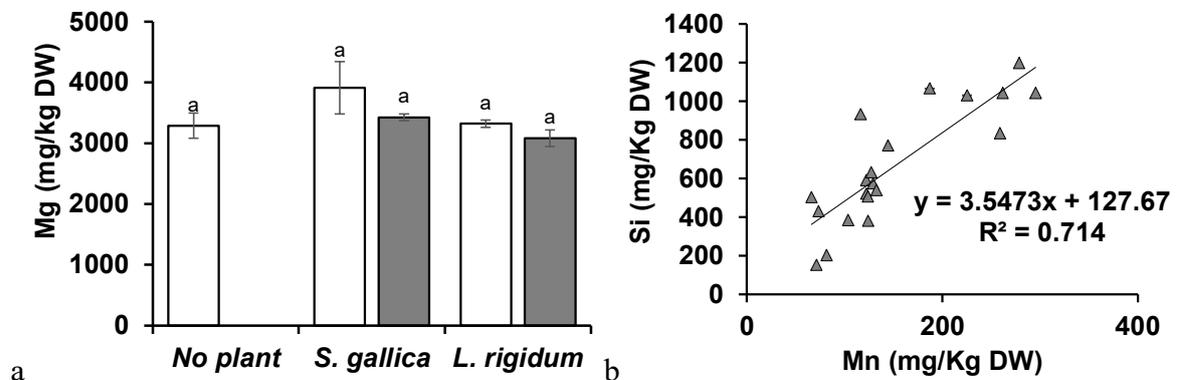


Figure S2. Concentration of Mg (a, columns) and correlation between Si and Mn concentrations (b, triangles) in shoots of 3-week-old wheat grown in disturbed (white columns) and undisturbed (grey columns) acid soil with previously grown arbuscular mycorrhizal fungi associated to *Silene gallica* L. (non-mycotrophic) and *Lolium rigidum* L. (strongly mycotrophic) and to no previous developer, in Mn toxic conditions. Different letters indicate statistically significant differences between the different treatments ($p <$

0.05).

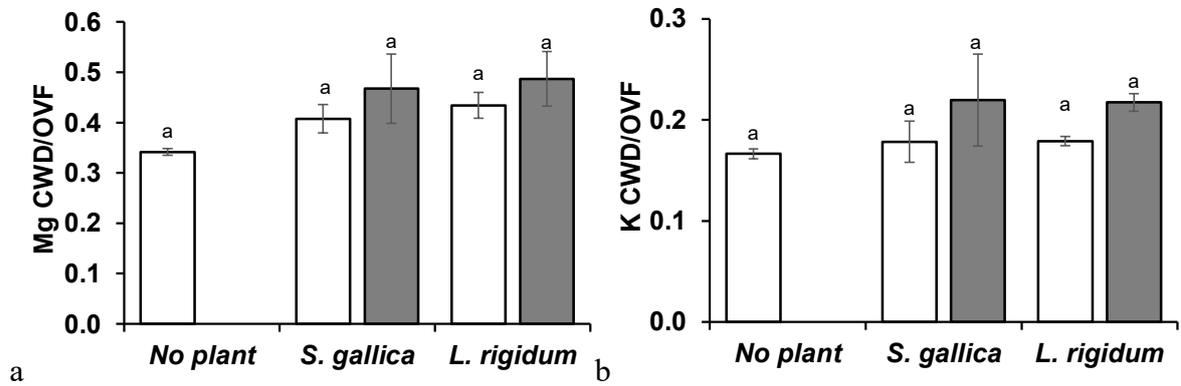


Figure S3. Cell wall fraction / organelle and vacuole fraction ratios for Mg (a) and K (b) in shoots of 3-week-old wheat grown in disturbed (white columns) and undisturbed (grey columns) acid soil with previously grown arbuscular mycorrhizal fungi associated to *Silene gallica* L. (non-mycotrophic) and *Lolium rigidum* L. (strongly mycotrophic) and to no previous developer, in Mn toxic conditions. Different letters indicate statistically significant differences between the different treatments ($p < 0.05$).