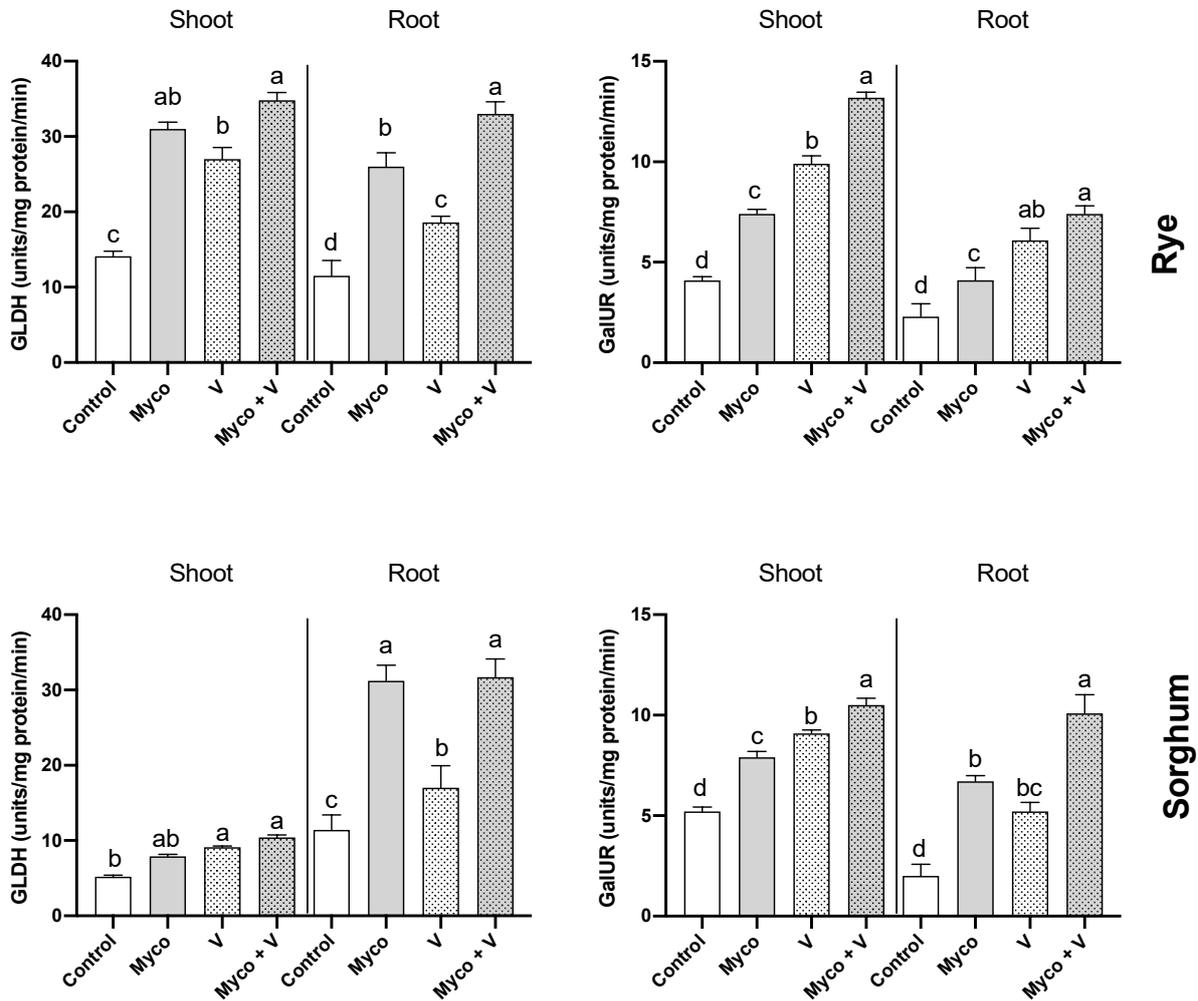


**Supplementary Figure S1:** Changes in nonenzymatic antioxidants (phenolics, flavonoids, total tocopherols content, total antioxidant capacity (TAC), Asc/total Asc and GST/total GSH ratio) in shoots and roots of 6-weeks old rye and sorghum grown in soils with 0 or 350 mg/kg soil sodium vanadate and with or without soil enrichment with inoculum of the mycorrhiza *Rhizophagus irregularis*. Data are mean values  $\pm$  SE (n=3). Data were statistically analyzed by one-way ANOVA followed by Tukey posthoc test for comparing the means. Different letters indicate statistically significant difference between means of the same plant species at significance level at least ( $P \leq 0.05$ ).



**Supplementary Figure S2:** Changes in the two key enzymes, GLDH and GalUR, involved in ascorbate metabolism in shoots and roots of 6-weeks old rye and sorghum grown in soils with 0 or 350 mg/kg soil sodium vanadate and with or without soil enrichment with inoculum of the mycorrhiza *Rhizophagus irregularis*. Data are mean values  $\pm$  SE (n=3). Data were statistically analyzed by one-way ANOVA followed by Tukey posthoc test for comparing the means. Different letters indicate statistically significant difference between means of the same plant species at significance level at least ( $P \leq 0.05$ ).